00134466

BOMBAY BRANCH

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on 01 February, 2020

00134466

EAST INDIA (PROGRESS AND CONDITION).

STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION

OF

INDIA

DURING THE YEAR 1913-14.

FIFTIETH NUMBER.

134466

(*Presented pursuant to Act* 21 & 22 *Vict. c.* 106, *s.* 53.

India Office,
17 July 1915.

T. W. HOLDERNESS,
Under Secretary of State for India.

2/5/1

Ordered, by The House of Commons, *to be Printed,*
19 *July* 1915.

CXC 11

LONDON:
PRINTED UNDER THE AUTHORITY OF HIS MAJESTY'S STATIONERY OFFICE
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298 *Price* 1s. 2d.

PREFACE.

THE Statement exhibiting the Moral and Material Progress and Condition of India is presented to Parliament in each year in accordance with the requirements of the 53rd section of the Act for the better Government of India (21 and 22 Vict., cap. 106), which provides as follows:—"The Secretary of State in Council shall, within the first fourteen days during which Parliament may be sitting next after the first day of May in every year, lay before both Houses of Parliament an Account for the financial year preceding that last completed of the Annual Produce of the Revenues of India . . . and such Account shall be accompanied by a Statement prepared from detailed reports from each Presidency and District in India in such form as shall best exhibit the Moral and Material Progress and Condition of India in each such Presidency."

The Statement is prepared in the India Office from a large number of annual reports received from India. Many of these reports are compiled from information furnished by District and Political Officers, and are submitted to the Governments of the respective Provinces and to the Government of India for consideration and review before transmission to England; and some of them, which deal with the operations of important departments and require the careful consideration of the authorities in India, are not received at the India Office till about a year after the date of the period to which they refer. It is, therefore, seldom possible to present the Statement to Parliament earlier than the date mentioned in the Statute, *i.e.*, about thirteen and a half months after the close of the official year.

This year, owing to the War, the arrival of various Reports and Returns has been more than usually delayed.

TABLE OF CONTENTS.

	PAGE
I. ADMINISTRATION AND LEGISLATION:	1–5
Administration	1
Legislation	2
II. JUSTICE AND POLICE:	5–14
Civil Justice	5
Crime and Police	6
Criminal Justice	10
Jails:	13
III. FINANCE:	15–22
Form of Accounts	15
Gross Revenue and Expenditure	15
Net „ „ „	16
Provincial Finance	17
Home Charges	18
Capital Outlay on Public Works	18
Debt	19
Currency and Exchange	20
Banks	22
IV. LAND REVENUE:	23–30
Land Tenures	23
Tenant Right and Land Legislation	24
Revenue Surveys and Settlements and Land Records	25
Revenue Assessments and Incidence	27
Collection of the Revenue	27
Wards' and other Estates	30
V. REVENUE FROM TAXATION AND OPIUM:	31–43
Salt	31
Excise	33
Provincial Rates	39
Stamps	40
Customs	40
Income Tax	41
Registration	41
Opium	42
VI. AGRICULTURE:	44–53
Season and Crop Reports	44
Agricultural Produce	45
Co-operative Credit Societies	50
VII. FORESTS:	54–57
VIII. MINERAL PRODUCTION AND MINING:	58–60
Mineral Production	58
Mining Concessions	59
Inspection of Mines	60
Mining Education, &c.	60
IX. MANUFACTURES:	61–65
Introductory	61
Government and Industrial Development	61
Large Industries	61
Factory Legislation	63
„ Inspection	64
Patents and Designs	64
X. TRADE:	66–70
Foreign Seaborne Trade	66
Land Frontier Trade	69
Coasting Trade	69
Shipping	69
Freights	69
Working of the Merchandise Marks Act	70
Joint Stock Companies	70
XI. PUBLIC WORKS:	71–81
General	71
Railways	72
Irrigation	75
Buildings and Roads (Civil)	80
XII. POST OFFICE AND TELEGRAPHS:	82–85
Post Office	82
Telegraphs	83
Indo-European Telegraph Department	85
XIII. SCIENTIFIC DEPARTMENTS:	86–93
General	86
Board of Scientific Advice	86
Survey of India	86
Other Surveys	87
Meteorological Department	87
Agricultural Departments	88
Civil Veterinary Department	91
Archæological Department	92
Medical Research Institutes	92
XIV. EDUCATION, LITERATURE, AND THE PRESS:	94–102
Education	94
Literature and the Press	100
XV. LOCAL SELF-GOVERNMENT:	103–110
General	103
Municipalities	103
District and Local Boards	107
Port Trusts	109
XVI. CONDITION OF THE PEOPLE:	111–121
Vital Statistics	111
Plague	113
Sanitation	114
Hospitals, Dispensaries, &c.	115
Emigration and Migration	116
Prices	118
Wages	119
Famine or Scarcity	119
General Remarks	120
XVII. ARMY AND MARINE:	122–124
Army	122
Military Works	123
Marine	124
XVIII. FRONTIERS AND NATIVE STATES:	125–134
Frontier States	125
Native States	128
BIBLIOGRAPHY OF OFFICIAL REPORTS	135

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Indian Currency and Weights and Measures.

Currency.—The silver rupee (containing 165 grains of fine silver and 15 grains of alloy and weighing in all 180 grains troy or 1 tola) was the sole standard of value until the 26th June 1893, when the Indian mints were closed to the unrestricted coinage of silver into rupees and it was notified that gold coin and bullion would be received at the mints in exchange for Government rupees at the rate of 7·53344 grains of fine gold for one rupee, being equivalent to a rate of exchange of 15 rupees per £1. In 1899 British gold coins were made legal tender side by side with rupees at that rate.

The Indian denominations with their British equivalents are—

Pie	= $\frac{1}{12}$ penny.
Pice (3 pies)	= 1 farthing.
Anna (12 pies)	= 1 penny.
Rupee (16 annas)	= 1*s.* 4*d.*

A lakh (lac) is 100,000 rupees and a crore is 100 lakhs.

Weights and Measures.—The weights adopted in Government transactions and by the railway companies are as follows :—

1 tola	= 180 grains	=	11·66 grams.
1 chittak (5 tolas)	= 900 „	=	58·32 „
1 ser (16 chittaks)	= $2\frac{1}{2}$ troy lb. (or $2\frac{2}{35}$ lb. avoir.)	=	933·10 „
1 maund (40 sers)	= 100 „ „ (or $82\frac{2}{7}$ „ „)	=	37·32 kgms.

CHAPTER I.

ADMINISTRATION AND LEGISLATION.

Administration.

The following were the holders of the most important appointments connected with the administration of India at the end of the year under review :—

I. In London.

Secretary of State.—The Most Hon. the Marquess of Crewe, K.G.

Permanent Under Secretary of State.—Sir T. W. Holderness, K.C.B., K.C.S.I.

Parliamentary Under Secretary of State.—Mr. Charles Roberts, M.P.

Members of the Council of India.—Lieut.-Col. Sir D. W. K. Barr, K.C.S.I.; Sir F. O. Schuster, Bart.; Sir T. Morison, K.C.I.E.; General Sir C. C. Egerton, G.C.B., D.S.O.; Sir J. D. La Touche, K.C.S.I.; Sir Krishna Gobinda Gupta, K.C.S.I.; Sir J. Thomson, K.C.S.I.; Sir S. W. Edgerley, K.C.V.O., C.I.E.; Mirza Abbas Ali Baig, C.S.I.; L. Currie.

II. In India.

Governor General of India.—The Right Hon. Baron Hardinge of Penshurst, G.C.B., G.M.S.I., G.C.M.G., G.M.I.E., G.C.V.O., I.S.O.

Members of Council.—General Sir Beauchamp Duff, G.C.B., K.C.S.I., K.C.V.O., C.I.E., Commander-in-Chief (extraordinary); Sir R. W. Carlyle, K.C.S.I., C.I.E.; Sir S. H. Butler, K.C.S.I., C.I.E.; Sir Syed Ali Imam, K.C.S.I.; W. H. Clark, C.S.I., C.M.G.; Sir R. H. Craddock, K.C.S.I.; Sir W. S. Meyer, K.C.I.E.

Governor of Madras.—The Right Hon. Baron Pentland, P.C., G.C.I.E.

Members of Council.—Sir J. N. Atkinson, K.C.S.I.; Pazhamanheri Sundaram Sivaswami Aiyar, C.S.I., C.I.E.; Sir H. A. Stuart, K.C.V.O., C.S.I.

Governor of Bombay.—The Right Hon. Baron Willingdon of Ratton, G.C.I.E.

Members of Council.—Sir R. A. Lamb, K.C.S.I., C.I.E.; C. H. A. Hill, C.S.I., C.I.E.; Prabhashankar Pattani, C.I.E. (temporary).

Governor of Bengal.—The Right Hon. Baron Carmichael of Skirling, G.C.I.E., K.C.M.G.

Members of Council of Governor of Bengal.—Sir F. W. Duke, K.C.I.E., C.S.I.; P. C. Lyon, C.S.I.; Nawab Saiyid Shamsul Huda.

Lieutenant Governors.—United Provinces of Agra and Oudh, Sir J. S. Meston, K.C.S.I.; Punjab, Sir M. F. O'Dwyer, K.C.S.I.; Burma, Sir H. Adamson, Kt., K.C.S.I.; Bihar and Orissa, Sir C. S. Bayley, K.C.S.I., I.S.O.

Members of Council of Lieutenant Governor of Bihar and Orissa.—E. A. Gait, C.S.I., C.I.E.; E. V. Levinge, C.S.I.; Maharaja Bahadur Sir Rameswar Singh, K.C.I.E., of Darbhanga.

Chief Commissioners.—Central Provinces, Sir B. Robertson, K.C.S.I., C.I.E.; North-West Frontier Province, Lieut.-Col. Sir G. O. Roos-Keppel, K.C.I.E.; Assam, Sir Archdale Earle, K.C.I.E.

Creation of a Legislative Council for the Central Provinces.—Steps were taken during the year for the constitution of a Legislative Council for the Central Provinces. The first meeting of the Council took place on the 17th August 1914.

Public Services Commission.—The Royal Commission on the Public Services in India continued its inquiries during the year under review.

Legislation.

I. In England.—Nil.

II. In India.

Between the 1st April 1913 and the 31st March 1914 the following enactments received the assent of the Governor-General of India:—Eleven Acts passed by the Council of the Governor-General for making laws and regulations, four by that of Madras, six by that of Bombay, seven by that of Bengal, two by that of the Punjab, two by that of the United Provinces of Agra and Oudh, two by that of Burma, and four by that of Bihar and Orissa. Six regulations were passed by the Governor-General in Council on the recommendation of the Local Governments of the provinces affected by them in accordance with the provisions of 33 Vict. c. 33.

The following are the measures referred to :—

Acts of the Governor-General's Council.

The Code of Civil Procedure (Amendment) Act (No. I. of 1914) was passed to enable the High Courts in the Presidency towns to extend to the Presidency Small Cause Courts such provisions of the Code as are not inconsistent with the express provisions of the Presidency Small Cause Courts Act, and to remove doubts as to the validity of certain rules already promulgated by the High Courts.

The Destructive Insects and Pests Act (No. II. of 1914) gave power to Government to prohibit the import of articles likely to cause infection to crops.

The Indian Copyright Act (No. III. of 1914) applied, with certain modifications and additions, the Copyright Act of 1911 (1 & 2 Geo. V. c. 46) to British India.

The Decentralization Act (No. IV. of 1914) carried out certain recommendations of the Royal Commission on Decentralization, by amending numerous enactments in order to provide for the delegation of various powers and functions to lower authorities.

The Negotiable Instruments (Amendment) Act (No. V. of 1914) was passed to validate the practice of endorsing negotiable instruments in such a way as to make them payable to two or more payees jointly, or in the alternative to one or some of several payees.

The Provincial Small Cause Courts (Amendment) Act (No. VI. of 1914) excluded from the cognizance of Presidency Small Cause Courts certain suits which, though of small pecuniary value, practically involved a criminal charge, and which were triable by summary procedure without right of appeal, upon the facts.

The Indian Telegraph (Amendment) Act (No. VII. of 1914) was passed to enable the possession and working of wireless apparatus to be regulated more strictly than was possible under the Act of 1885.

The Indian Motor Vehicles Act (No. VIII. of 1914) consolidated the law in the various provinces of India by repealing the Provincial Acts and providing a uniform law for the whole of British India, with a view to promoting the convenience of motorists and giving increased facilities for motor travel. The provisions of the Motor Vehicles International Circulation Act, 1912, were re-enacted in this Act.

The Local Authorities Loans Act (No. IX. of 1914) consolidated and amended the law relating to the borrowing powers of local authorities.

The Repealing and Amending Act (No. X. of 1914) made formal amendments in certain enactments and repealed certain others which had become obsolete.

The Indian Companies (Amendment) Act (No. XI. of 1914) supplemented Act VII. of 1913 in respect of certain matters relating to the internal management of companies.

Acts of the Provincial Legislative Councils.

Madras.—*The Madras Abkari (Amendment) Act (No.* 1 *of* 1913) contains provisions for controlling denatured spirit and the bottling of liquors for sale, and makes the provisions of the Act specifically applicable to the products of the coca plant.

(Provincial Legislative Councils.)

The Madras Irrigation Cess (Amendment) Act (No. II. of 1913) legalised the levying by Government of water cess from tenants as well as landholders, and empowered landholders to recover the cess from their tenants. The Act also limits the period in which it shall be legal to levy the cess.

The Madras District Municipalities and Local Boards (Amendment) Act (No. III. of 1913) legalised the practice of farming-out the collection of fees leviable on markets, cart-stands, slaughter-houses, &c.

The Hindu Transfers and Bequests Act (No. I. of 1914) empowered Hindus to make gifts and bequests in favour of unborn persons.

Bombay.—*The Bombay Court of Wards (Amendment) Act (No. II. of* 1913) was passed to extend the protection given to landholders by the Bombay Court of Wards Act, 1905, to holders of pensions and cash allowances to which the Pensions Act, 1871, applies.

The Bombay Port Trust (Amendment) Act (No. III. of 1913) made statutory provision for the maintenance, &c., of a sinking fund for the repayment of borrowings by the Port Trusts, and also gave power to the Government of Bombay to sanction loans of not more than five lakhs of rupees, repayable in not more than 30 years, larger loans requiring the previous assent of the Governor-General in Council.

The Bombay Land Revenue (Amendment) Act (No. IV. of 1913) was passed with the object of making the liability for payment of land revenue coincide with the ownership of land, and to remove the unintentional existing divergence between right and liability which had resulted from the fact that a large number of registered occupants had lost their interest in the land.

The Bombay District Police Act, 1890, *and Bombay City Police Act,* 1902 *(Amendment) Act (No. V. of* 1913) contains provisions for strengthening the power of the police to prevent disorder and to maintain public safety at places of public amusement, &c.

The City of Bombay Municipal (Amendment) Act (No. VI. of 1913) conferred on the Bombay Corporation powers to enable that body to take certain measures for the repression and extermination of malaria.

The Prince of Wales' Museum (Amending) Act (No. VII. of 1913) re-vested in Government a portion of land not required for the museum, but which it was desirable to use for a road improvement.

Bengal.—*The Bengal Board of Revenue Act (No. II. of* 1913) altered the constitution of the Board of Revenue which now normally consists of one member only.

The Bengal Public Demands Recovery Act (No. III. of 1913) consolidated and amended the law relating to the recovery of public demands.

The Bengal Public Gambling (Amendment) Act (No. IV. of 1913) was passed to deal with "cotton-figure" gambling. It extended the meaning of the word "gaming" so as to enable Government to deal with this and other forms of public gambling. The Act also places restrictions on betting on races.

The Bengal Laws Act (No. I. of 1914) extending to Eastern Bengal certain Bengal enactments and to Western Bengal certain enactments previously in force only in Eastern Bengal and Assam and repealed certain other laws no longer required.

The Bengal Municipal (Sanitary Officers) Act (No. II. of 1914) provided for the appointment of sanitary officers in municipalities in the *mufassal.*

The Doveton Trust Act (No. III. of 1914) abolished the institution known as the Doveton College and placed its property and funds under Government management, for application, as nearly as possible, in the manner contemplated by the founders of that Institution.

The Calcutta Municipal (Loans) Act (No. IV. of 1914) was passed to remove certain defects in the provisions of the Calcutta Municipal Act, 1899, relating to loans.

Punjab.—*The Punjab Excise Act (No. I. of* 1914) consolidated and amended the law relating to intoxicating liquors and drugs in the Punjab. It was based on the recommendations of the Excise Committee of 1906 and followed the lines of recent legislation in Bengal and the United Provinces.

The Punjab Fisheries Act (No. II. of 1914) was passed to give Government more extended powers to make rules for the protection of fish in selected waters.

(Provincial Legislative Councils.)

United Provinces.—*The United Provinces Local Rates Act* (*No. I. of* 1914) repealed and re-enacted, with numerous amendments, the Local Rates Act, 1906. The amendments were rendered necessary owing to concessions made by the Government of India by which appropriations of local rates for police purposes were discontinued.

The United Provinces Town Areas Act (*No. II. of* 1914) made provision for the sanitation, lighting, and improvement of town areas in the United Provinces of Agra and Oudh, and replaced the Bengal Chaukidari Act of 1856, which had become obsolete. The new Act, in accordance with the recommendations of the Decentralization Commission, empowered the Local Government to provide by rules for administrative powers being exercised by the local *panchayat*.

Burma.—*The Burma Land and Revenue Amendment Act* (*No. I. of* 1913) obviated the necessity for obtaining the prior sanction of the Government of India to certain rules made by the Local Government under the Lower Burma Land and Revenue Act, 1876, and the Upper Burma Land and Revenue Regulation, 1889.

The Burma Village Amendment Act (*No. I. of* 1914) was passed to check the practice of carrying deadly weapons at *pwes* (public dramatic performances).

Bihar and Orissa.—*The Bihar and Orissa Board of Revenue Act* (*No. I. of* 1913) is in similar terms to the corresponding Bengal Act and provides for a Board of Revenue consisting normally of one member only.

The Orissa Tenancy Act (*No. II. of* 1913) consolidated and amended the greater part of the law relating to the law of landlord and tenant in Orissa.

The Chota-Nagpur Rural Police Act (*No. I. of* 1914) re-enacted the Act of 1887 bearing the same name, and incorporated certain amendments which the experience of the working of that Act had shown to be necessary or desirable.

The Bihar and Orissa Ferries (*Amendment*) *Act* (*No. II. of* 1914) enables a District Magistrate to cancel a ferry lease in default of payment of rent, without having to await the approval of the Commissioner of the Division.

Regulations.

The British Baluchistan Laws Regulation (*No. II. of* 1913) consolidated and amended the Regulations declaring the law in force in British Baluchistan.

The Angul Laws Regulation (*No. III. of* 1913) consolidated and amended the laws providing for the peace and good government of the Angul district in the Orissa Division.

The Upper Burma Registration Amendment Regulation (*No. IV. of* 1913) repealed the Upper Burma Registration Regulation of 1897 with a view to the extension of the Indian Registration Act, 1908, to Upper Burma.

The Coorg Noxious Weeds Regulation (*No. I. of* 1914) made provision for the eradication of destructive weeds in Coorg.

The Ajmer Repealing and Amending Regulation (*No. II. of* 1914) made numerous changes in the local Regulations and was enacted to enable certain new administrative arrangements to be introduced.

The Ajmer Alienation of Land Regulation (*No. III. of* 1914) provided for the control of the alienation of agricultural land in Ajmer-Merwara with a view to checking the growing indebtedness of agriculturists. It followed the lines of similar legislation in the Punjab.

CHAPTER II.

JUSTICE AND POLICE.

(For further details see Statistical Abstract for British India, Tables 24 to 42.)

Civil Justice.

Bengal.—The number of original suits instituted in the mufassal courts in 1913 showed a small decrease on the figures for 1912, but there was an increase in the number of suits disposed of. There was a general increase in the average duration of suits. The total number of appeals pending at the end of 1913 was 10,916, a decrease of 181 on the figures for 1912. Results of eight appeals to the Privy Council were received during the year: the decisions of the High Court were affirmed in seven instances and reversed in one.

Assam.—The number of original suits instituted in the Province showed a further increase, as did also the number of suits pending, in spite of an increase in the number disposed of. There was a general increase in the average duration of suits. There was also a considerable increase from 559 to 1,064 in the pending files of the civil appellate courts, but in the High Court the number of cases pending at the end of the year was 158, or 25 less than at the end of 1912. The results of the appeals decided were less favourable to the lower courts than in 1912.

North Western Provinces.—The total number of suits instituted during the year was 121,412, as compared with 121,403 in the previous year. The one noticeable feature was the drop of 1,455 in mortgage suits, and institutions under this head have now shown a progressive decrease for the last three years. The total number of suits before the courts rose from 146,132 to 146,797, and the number of suits decided was 124,026 as against 125,262 in 1912. The average duration for all courts was 89 days for contested, and 44 for uncontested, suits, as compared with 79 and 38 days respectively in 1912. The number of appeals from civil courts for disposal again showed an increase, being 13,242, as against 12,245 in 1912, and the number disposed of rose from 8,123 to 8,457. There was an increase in the number of cases pending at the end of the year from 4,804 to 5,641, but the number of appeals pending for over three months fell from 3,016 to 2,638.

Oudh.—There was in 1913 a decrease from 65,288 to 59,516 in the number of institutions. This figure is the lowest since 1908. The average duration of suits rose from 32 to 39 days in uncontested, and from 65 to 72 in contested, suits. The total number of appeals for disposal again showed an increase as did also the disposals. The pending file at the end of the year had increased from 541 to 723.

Central Provinces and Berar.—The total number of suits instituted in 1913 was 100,200, an increase of 120 over the number for 1912. There has been a further satisfactory reduction in the number of pending suits both in the Central Provinces and in Berar. The number of institutions of appeals again rose as did the number of pending files in the appellate courts in spite of increased disposals.

In the Central Provinces the average duration of suits was 133·4 days in contested cases and 67·0 in uncontested, compared with 166·3 and 78·9 respectively. The Berar figures were much higher, but showed a great improvement, being 212·5 days in contested cases and 93·5 in uncontested cases, the figures for 1912 being 269·5 and 129·0 respectively.

Punjab.—The total number of suits instituted in 1913 was 191,702, a decrease of 8,000 from the 1912 figure. The average value of a suit rose from Rs. 169 to Rs. 186. Litigation shows a downward tendency in the districts of the Central Punjab, where the co-operative movement is most firmly established. The average duration of suits again rose considerably. There was an increase in the number of pending files in the appellate courts from 1,732 to 1,916, though the number of cases disposed of was 2,025 as against 1,657 in 1912.

Bombay.—The total number of civil cases decided during the year in Bombay was 316,033 as against 296,330 in 1912. The total number of suits instituted in all the

(Civil Justice.)

Courts was 153,452 as against 136,083. The percentage of suits for money or moveable property fell from 79·9 to 78·7. There were 206,031 suits for disposal before all the Courts, and 55,818 were left pending at the close of the year; the corresponding figures for 1912 were 193,621 and 46,763 respectively. Of the total number of suits disposed of after contest and on reference to arbitration judgment was given for plaintiff in whole or in part in 83·9 per cent., and for defendant in 16·1 per cent. of cases. The average duration of contested suits fell from 222 to 210 days, and of uncontested suits from 96 to 95. 7,230 appeals were presented during the year; 6,421 were decided, and the number of arrears at the close of the year was 7,011 as compared with 6,202 in the previous year. The average duration of appeals was 343 days as against 312 in 1912.

Madras.—The total number of suits instituted in Madras in 1913 was 482,940, as against 484,622 in 1912. In the Presidency town one suit was instituted for every 26 persons, this ratio being the same as in the previous year. In the suits disposed of in 1913 the percentage of plaintiffs, who succeeded in obtaining decrees for the whole or part of the relief claimed, was 75·17. The total number of appeals preferred was somewhat greater than in 1912, and considerably over the average for the five years 1907–11. There was a further increase of arrears in the City Civil Court in which the average duration of contested suits rose very considerably during the year.

Burma.—In Lower Burma the number of original suits instituted fell from 49,942 in 1912 to 43,350 in 1913, and in Upper Burma from 22,823 to 20,357. The decrease under the head "Suits for Money or for Moveable Property" was greater than the net decrease under all headings. The good paddy season is the cause assigned for the decrease in Lower Burma. Suits for immoveable property, on the other hand, attained the record figure of 1,838. The reason given is the rise in the price of paddy land. In Lower Burma the average duration of suits was slightly shorter in contested cases than in 1912, but greater in uncontested cases, and in both classes of cases in Upper Burma. Appellate work in Lower Burma was done promptly, and in Upper Burma, where the volume of cases for disposal was almost doubled, all but four appeals were disposed of.

Bihar and Orissa.—The number of original suits instituted was 171,650, a decrease of 4,367 from the figures of 1912. There were 265,080 suits for disposal, and of these 177,654 were decided, an increase of 13,909 over the figures for 1912. Of the contested suits 80·9 per cent. were decided in favour of the plaintiffs. There was a marked increase in the duration of suits tried. The pending file of original suits at the close of the year was reduced from 89,273 to 87,428. Appellate arrears, on the other hand, rose from 5,283 to 5,980.

North-West Frontier Province.—The total number of suits instituted was the largest yet recorded, the figures for suits for money and moveable property being 21,077, as against 20,167 in 1912. The increase was confined to suits of a petty nature, and a very large percentage of the suits brought were of a speculative nature, nearly 33 per cent. of the contested cases being decided against the plaintiffs. The average duration of original contested suits was 46 days, as compared with 44 days in 1912, and in uncontested cases it arose from 21 to 24 days. The increase is due partly to congestion in the Divisional Court, Peshawar, and in the Munsifs Court at Dera Ismail Khan, where the number of petty cases was very large.

Coorg.—In Coorg the number of suits filed (2,682) was the highest figure during the past decade. The total value of suits was 1·26 per cent. more than that of the previous year, and the average value was the same as in 1912, viz., Rs. 92. The number of arrears fell from 359 in 1912 to 306; and there were 15 cases pending in the appellate courts at the close of the year.

Crime and Police.

Madras.—In 1913 crime again increased, though, fortunately, to a much lesser extent than in the preceding year. At the same time, though prices did not advance, they maintained the same high figure as in 1912. The total number of true cases of grave crime rose from 34,408 in 1912 to 35,059 in 1913. The number of murders was 689, the highest figure on record. On the other hand, there has been an

appreciable decrease in the number of dakaities, mainly in consequence of certain wandering gangs having been brought under the operation of the Criminal Tribes Act in the course of the year. In the districts in which this Act was introduced there was, moreover, a decrease of crime under nearly all heads, though more especially in respect of gang crime and theft with violence. There were again several serious riots. Investigation was refused in 1·8 per cent. as compared with 1·5 in 1912 of the cases reported during the year, the number being 180,091. A larger amount of property was lost than in either of the two previous years, but the percentage of recovery was better.

The total sanctioned strength of the police was on the last day of the year 32,815, or 51 in excess of the number on the corresponding date of the previous year. Recruiting continued to be generally difficult, owing to the demand for labour and the higher wages offering in other fields of employment. In most districts there was a deterioration in the physique of the recruits. The percentage in the force of illiterates was 11·5 as against 11·8; the enlistment of illiterates has now been confined to the Agency tracts and the Armed Reserves. The new class of directly recruited sub-inspectors is proving itself a more intelligent, reliable, and straightforward body of men than the old station-house officers, but, mainly owing to their defective practical training, they are lacking in detective ability. Casualties were again less numerous, but the number both of resignations and of desertions showed an increase on 1912. The decrease in the percentage of departmental punishments continued, probably owing to the extensive use of the system of deferred punishments. The cost of the Department rose from £590,503 to £610,713.

Bombay.—There was a marked diminution of crime in 1913, the number of cognisable cases reported amounting to 36,950, as compared with 41,342 in the previous year. The fall, which was common to all classes of crime and extended to all parts of the Presidency, is ascribed to a variety of causes, chief among these being the good agricultural conditions and the vigorous action taken under the provisions of the Criminal Tribes Act. Complaints for disposal, including those pending from previous years, totalled 43,074 as against 47,198 in 1912, and all but 3,040, in which investigation was refused, remained for investigation. At the close of the year the ratio of cases pending to cases for disposal was 10·2 as compared with 12·3 in 1912 and 13·5 in 1911. True cognizable cases actually disposed of totalled 27,303 during 1913 as against 28,447 in 1912. The proportion of undetected cases to true crime disposed of in the entire Presidency including Sind was 40 per cent. in 1913, as against 42 per cent. in the three preceding years. Although crime decreased, the value of property stolen in cognizable offences during the year under review increased from £77,426, the figure for 1912, to £79,232. At the same time, however, the percentage value of property restored improved to 36·2 as compared with 34·7 in 1912.

The total strength of the police force of the Presidency was, at the close of the year, 24,235 as against 24,124 in 1911, and the total cost £455,868, an increase of £1,113, for which Sind is entirely responsible. The ratio of punishments to the actual strength of the force fell slightly to 12·5 per cent., while that of rewards increased. The percentage of literates in the force of the entire Presidency stood at 55·2 as against 53·98. Recruiting continued difficult, owing mainly, it is stated, to the inadequacy of the pay offered, and there was again a slight increase in the number of resignations during the year. The health of the force showed an improvement on the previous year. Reports from practically all districts testify to a continued improvement in the moral standard of the force and the quality of their work.

Bengal.—Political crime was again an important feature of the year. The number of political cases increased to 14, the figures for 1912 and 1911 being 12 and 13 respectively. An active vendetta, carried on by the anarchist group against the police, resulted in the murder at different times of two subordinate police officers and two informers, but in no case were the offenders brought to justice. Two important political cases were disposed of during the year. One of these was the Comilla case, in which the 12 accused who were sentenced to seven years' rigorous imprisonment each for assembling with the purpose of committing dakaiti, appealed to a higher court. The appeal was dismissed against all the accused except two, who were acquitted. The second was a conspiracy case at Barisal, chiefly remarkable for the revelations of the systematic attempts made by the anarchist party to exploit the

schools in Bengal. In the issue 12 of the accused pleaded guilty to conspiring to wage war against the King and received appropriate sentences, the charge against the remainder being then withdrawn. With regard to crime generally, the number of true cases reported amounted to 50,859 as against 49,236 in 1911, every head showing an increase except rioting, coining, and murder. The rise, however, was not general, a large number of the districts showing a decrease.

Though the number of recruits was greater than in 1912, difficulty in recruitment still obtains, and will probably continue until there is an improvement in pay. The general health of the force continued to be indifferent. Only 23 cases of alleged serious ill-treatment or torture were reported to Government as against 62 in the preceding year, and of these not more than 2 ended in conviction, 9 resulting in acquittal, and 12 being dismissed. The actual expenditure for the financial year 1913–14 was £501,787 as against £439,399 in 1911; and the sanctioned strength of the subordinate police, excluding the Criminal Investigation Department was, on 31st December 1913, 20,146 as compared with 19,142 in the previous year.

United Provinces.—The rains of 1913–14 were, on the whole, a failure in the United Provinces, and agriculture suffered correspondingly. These conditions were naturally reflected in the crime statistics, and although the rise in the total volume of reported crime was hardly appreciable, there was a considerable increase in serious offences against the person and property. The rise in the number of murders from 508 to 641, the latter figure probably constituting a record for the United Provinces, was especially remarkable. Dakaiti cases likewise increased by 44 on the previous year. The percentage of cases in which investigation was refused has further declined from 34—last year's figure—to 33·6, but the proportion of uninvestigated cases is still considered too high. An unsatisfactory feature of the year's work is the continued decline in the percentage of convictions in cases investigated by the police. In 1913 the figure was only 41·4. During 1913 vigorous action was taken under the Criminal Tribes Act, with results that became manifest towards the close of the year. The general standard of conduct and work among the police continued to improve. The number of departmental punishments fell from 696 to 647 in the case of the men, and there were comparatively few charges of ill-treatment and extortion. Here as elsewhere, however, in India, the service is unpopular chiefly owing to inadequacy of pay. The number of literates in the force increased slightly, but still remains low. The percentage of admissions into hospital rose from 18 to 27.

Punjab.—The steady increase in crime, which for many years past has been shown in the police records of the Punjab, received a slight check in the year under review, the number of true cognizable cases (excluding the figures for the new Delhi province) being 47,846 as against 48,256 for 1912. The diminution, however, is entirely in offences against property, and one of the gravest features of the year is the large increase in the number of murders, of which there were 625 true cases as compared with 511 in 1912. The number has more than quadrupled in the last 50 years. Notwithstanding, therefore, the slight decrease in crime on the whole the situation still remains very serious. Police working was, on the whole, more successful than in 1912, and the percentage of cases convicted to cases tried rose from 65 to 68. There was an increase of 276 in the sanctioned strength of the force, and a rise in police expenditure of £4,373 to £372,900. The number of judicial and departmental punishments showed little change from the previous year. The number of educated men in the force increased by 296, and of the lower ranks 33½ per cent. could, at the close of the year, read and write. The directly recruited class of sub-inspectors showed here as elsewhere a lack of detective ability.

Assam.—The number of true cases in Assam rose from 10,687 in 1912 to 11,777. In serious crime the increase amounted to 693 cases, of which the Assam Valley was responsible for 403. In the sphere of political crime the quiescence of the previous year was broken by a dastardly attempt to assassinate the Sub-divisional Officer, Maulvi-Bazar, by means of a picric-acid bomb. Through its premature explosion, the would-be assassin himself met his death, but all attempts to establish his identity had up to the end of the year failed. There was also a large increase in the circulation of seditious literature during the year.

The total sanctioned strength of the force rose during the year from 3,271 to 3,418, and the cost of the Department rose by £11,759 to £154,952. The discipline

of the force continued to be unsatisfactory, and recruitment was as usual difficult, but the increased pay now sanctioned will probably improve matters in this respect.

Central Provinces and Berar.—An early cessation of the monsoon of 1913 led to a deterioration of the economic conditions in the latter part of the year and to the creation of a certain amount of distress among the people. The effect of these factors is noticeable in the year's statistics of crime. Thus, although there was a considerable increase in the total number of reported cases, minor offences against property were responsible for far the greater part of the rise and the increase in serious crime was only moderate. The number of murders rose from 188 to 225 and of riots from 192 to 266. Co-operation between the people and the police for the disclosure and investigation of crime continued to improve.

The sanctioned strength of the force was slightly increased during the year and the cost of the Department rose by £6,400 to £227,000. Recruiting was more active than in previous years, but the class of men who joined the service were still not satisfactory. Some improvement may be expected from the increase of pay sanctioned for head constables, but this is only a half measure and cannot be more than partially effective. The number of punishments inflicted during the year showed a considerable increase, and no less than 10 officers and 166 men were dismissed as against 3 officers and 124 men in 1912.

Burma.—The unsatisfactory conditions noted in the report for 1912 showed little sign of betterment in the year under review. Though there was a slight improvement in the statistics of crime the total volume was still alarmingly large, while the difficulty in maintaining the rank and file of the police force at its sanctioned strength was, if anything, intensified. The number of true cases of cognizable crime declined by 1,468 to 41,299, but the decrease was mainly in minor cases, violent crimes standing at the high figure of 1,438, or only 69 less than for the year 1912. With regard to the strength of the force it is reported that the shortage amounted to 992, or nearly 7 per cent., an increase of 189 on the figures for the previous year. Moreover, in order to prevent a still further decline in numbers it has been found necessary to accept recruits below the former standard, both in physique and character. The causes of the trouble are partly low pay, but more especially defective housing and poor prospects. To remedy the latter evil promotion has now been sanctioned from the ranks to fill 30 per cent. of the vacancies in the grade of sub-inspectors instead of only 15 per cent. as heretofore. The large number of dismissals and removals from this service—525 as compared with 557 in 1912—is due chiefly to the necessity of accepting inferior recruits. Otherwise the conduct and discipline of the force was satisfactory. The percentage of literates among the men, viz., 86, is certainly high, and the results of the training of the recruits are good. The efficiency of the Burma Military Police maintained the same high standard as formerly, and excellent work was again rendered by the force on the north-eastern frontier.

Bihar and Orissa.—The total number of cognizable crimes reported during the year 1913 was 60,026, representing a slight increase on the corresponding figures for 1912. Dakaity declined from the high figure 136 in 1912 to 113, while true cases of murder increased from 157 to 200. The proportion of police cases ending in conviction to cases decided was for all classes 89 per cent., and the same percentage was recorded for cases investigated by the police as compared with cases reported.

The work and conduct of the force gave evidence of steady if slow improvement. With regard to complaints of oppression the new rules framed during the year had the effect of securing for them still more attention than hitherto, and they are now generally made the subject of magisterial enquiry. The sanctioned strength of the subordinate staff on the 31st December 1913 was 13,522 against 12,899 in 1912. The percentage of literacy was approximately 57.

North-West Frontier Province.—The fall in cognizable crime which took place in 1912 was not maintained in the year under review, the figures showing an increase of 335 true cases. Burglaries and thefts accounted for almost the whole of this rise, while dakaities, on the other hand, decreased by 23 cases. Among the dakaities, however, were two very serious cases, the first an attack on Khainabad Station, the second the holding up of the Down Calcutta Mail at Jahangira Road Station by an armed gang, on which occasion four persons, including the European driver and guard, were shot dead. Kidnapping cases increased from 35 in 1912 to 48.

(Crime and Police.)

The Arms section of the Criminal Investigation Department was again very successful in its operations against professional rifle thieves. As regards the working of the ordinary police it continued to deteriorate, the proportion of convictions to true cases investigated having still further declined to the low figure of 33·2 per cent. The sub-inspectors showed little detective power, chiefly owing to their inexperience and want of local knowledge. The supply of recruits was insufficient to make good the wastage among the men, and the latter is so great that out of a total sanctioned number of 3,503 constables 39 per cent. had less than three years' service and 81 per cent. less than 10 years. The number of punishments, judicial and departmental, showed little change from the previous year.

Coorg.—The number of cognizable offences reported (573) was 17 in excess of the number for the previous year. There was a rise under breaches of special and local laws, but a decrease under minor offences against property. The percentage of convictions obtained in cognizable cases investigated by the police was 85·18 against 84·52 in 1912. The percentage of property recovered out of the total amount stolen, which in 1912 had shown a sharp rise to 70·61, fell to 46·38. The conduct of the force, which was slightly larger than in 1912, was on the whole satisfactory; and there were only six illiterates in Canarese as compared with five in 1912.

Criminal Justice.

Bombay.—The total number of criminal cases disposed of during 1913 was 160,789 as compared with 167,245 during 1912, and the total number of offences reported was 163,994, a decrease of 8,109. The number of cases returned as true was 157,659, or 96·1 per cent. Cases under the Indian Penal Code related chiefly to offences of hurt, criminal force and assault, theft, mischief, criminal trespass and criminal intimidation, insult and annoyance. Among the cases returned as true, there were three offences against the State, and one relating to the army and navy. The number of cases affecting human life was 823, and of these 316 were murder cases, as against 291 in 1912. Of the 240,603 persons brought to trial 44·1 per cent. were acquitted or discharged, and 51·4 per cent. convicted, as compared with 44·9 and 50·4 per cent. respectively in the previous year; 4·1 per cent. remained under trial, and ·4 per cent. died, escaped, or were transferred. The number of original regular cases disposed of was 154,262 as against 159,039 in 1912. 65 persons were sentenced to death as compared with 67, while 251 as against 183 were condemned to transportation. In 46 per cent. of the appeals, the appeals were rejected and in 16·5 per cent. the sentences were reversed.

Madras.—The total number of original cases instituted in criminal courts in 1913 was 362,737, or 4,647 more than in 1912; the total number of appeals preferred was 9,837, or 316 more than in 1912, and 307 more than the average for the past quinquennium. The rise was fairly general. In the Presidency Magistrates' Courts, the total number of cases instituted was 60,649; only 57 cases were pending at the end of the year, and only 5 persons in custody. The number of cases committed to the High Court was 47 against 53 in 1912, and no case was pending at the end of the year. In the High Court the Government appealed against the acquittal of 57 persons, the quinquennial average being 73. The percentage of successful appellants was 9, as against 22 in the Sessions Courts and 33 in the Magistrates' Courts. Death sentences on 88 persons were referred for confirmation; of these, 45 were confirmed, 27 modified, and 16 reversed.

Bengal.—352,287 criminal offences were reported in Bengal during the year, an increase of 19,318 on the figures of 1912. Of this increase, by far the greater part was due to cases under special and local laws. Of the total number of cases under inquiry, 288,095 were found to be true and 245,052 were brought to trial, the corresponding numbers for 1912 being respectively 269,372 and 229,832. In the High Court 511 appeals against sentences of courts of session were decided, and of these 410 were upheld and 28 only reversed. Of the total number of cases brought to trial, 112,200 were in the courts of the police and municipal magistrates in the Presidency town, being 9,444 more than in the previous year. In the courts of session there was an increase in all classes of criminal work; in the High Court, on the other hand, in appellate and revisional work only. No Special Bench under

Act XIV. of 1908 was constituted during the year. There were again numerous cases in which sentences of whipping were passed illegally in contravention of the provisions of the Whipping Act of 1909.

Assam.—During the year 41,767 offences were reported to the criminal courts, against 39,174 in 1912; of these 32,092 were under the Penal Code, all the districts, except Lakhimpur, reporting an increase. The percentage of complaints rejected or cases struck off as false again declined slightly. 19,520 cases were brought to trial as compared with 17,422 in the previous year, and in those decided by magistrates, 34·2 per cent. of the persons tried under the Indian Penal Code were convicted, the corresponding percentage in 1912 being 37·1. In the High Court, 6 appeals were pending, 116 appeals preferred during the year, and 117 disposed of, leaving four pending at the close. In only nine of the appeals disposed of were the original convictions reversed. As regards reference under paragraph 374, Code of Criminal Procedure, seven cases involving seven persons were referred to the High Court, and one case was pending; seven were decided, two of the accused being sentenced to death, and four to transportation for life. In the remaining case the accused died before it was disposed of. Of 210 cases of application for revision disposed of by the High Court, the orders of the lower courts were affirmed in 107, and reversed in 72, cases.

Punjab.—There was an appreciable reduction in 1913 in the number both of reported offences and true cases, and an improvement in the proportion of cases which were actually brought to trial. The general situation, however, in regard to crime remained much the same in 1913 as it was in 1912, and so far as criminal administration is concerned there was still much to be desired. The proportion of persons convicted to those brought to trial was 26 per cent., which, though 4 per cent. better than the figures for 1912, is still extraordinarily low. The average duration of both original cases and appeals was unduly high. The number of persons dealt with by the Chief Court on appeal and revision rose from 953 and 3,154 to 1,262 and 3,855 respectively. In 239 of the appeal cases the original sentence was reversed. The number of murder references disposed of by the Chief Court rose from 103 to 165. The sentences on 147 out of the 231 persons involved were confirmed. Altogether the work of the Chief Court was exceptionally heavy during the year. The regulations with regard to the trial of frontier crimes continued to work well.

North-West Frontier Province.—The number of offences admitted to have occurred in 1913 was practically the same as in 1912, but cases under the Indian Penal Code showed a slight decrease. A satisfactory feature of the year's work was the substantial increase of the complaints dismissed *in limine*. For offences under the Indian Penal Code 21,977 persons were tried during the year, but only 4,757, or little more than one-fifth were convicted. Capital sentence was passed by the Sessions Judges on 59 persons, against 48 in 1912, and in 42 cases the sentences were confirmed by the Judicial Commissioner. The average duration of all cases again increased, the returns for 1911, 1912, and 1913 being respectively 8, 9, and 10 days.

North-Western Provinces.—Under the Indian Penal Code the total number of offences reported was 109,887 as against 109,303 in 1912, and of cases returned as true 79,917 as against 79,633. The number of persons under trial was 147,863 as against 145,864 in 1912. So far, therefore, as the total volume of crime is concerned, the failure of the monsoon in 1913 produced little effect. The satisfactory increase of the previous year in the number of cases brought to trial under the Act for the Prevention of Cruelty to Animals was more than maintained. The percentage of persons convicted to persons under trial remained at 41 in Courts of Magistrates, but fell from 72 to 70 in Courts of Session. The working of the system of trial by jury was not considered satisfactory by the Sessions Judges of Allahabad and Benares, the only two judgeships where the system is in force. There was a decrease in the number of appellants before the High Court, and the number of totally successful appeals continued low. A few changes in the criminal administration were introduced from 1st April 1913 as a result of the report submitted by the Committee presided over by the late Mr. Richard Greeven. The good work performed by Honorary Magistrates was again conspicuous.

Oudh.—There was a slight increase in the offences reported and returned as true and brought to trial, under the Penal Code and a slight decrease in those under the

(Criminal Justice.)

Code of Criminal Procedure, and other special and local laws. There was an increase of not less than 35 per cent. in offences affecting human life. The increase recorded in 1912 in the number of false and vexatious accusations was not maintained. In Magisterial Courts the percentage of appellants whose sentences were confirmed fell from 71 to 65. In Sessions Courts the percentage rose from 75 to 78. Five appeals were filed by Government from orders of acquittal against 10 persons. With regard to 3 persons the appeals were dismissed, 3 were convicted, and in the case of the remaining 4 a retrial was ordered.

Coorg.—The number of cases brought to trial totalled 2,964, or 698 more than in 1912, and the number of offences reported (3,143) increased by 654. Thirteen persons were found guilty of heinous crime, and three of them were convicted of murder, one being hanged and the other two transported for life. Three appeals against convictions were heard by the Judicial Commissioner ; the sentence in one case was confirmed, and the other two were pending at the end of the year.

Central Provinces and Berar.—According to the new method of calculation introduced in 1913 the total number of offences reported in the Central Provinces and Berar rose from 39,820 to 44,332, but this large increase of 11·4 per cent. is out of proportion to the increase in cases returned as true, which only amounted to 7·6 per cent. Offences under the Indian Penal Code numbered 32,940 as against 29,785 in the previous year. As regards original jurisdiction, the percentage of persons convicted to the total number whose cases were disposed of increased from 38·1 (the correct figure of the previous year) to 39·2. These figures are, however, misleading, as resort is often made in minor cases to the criminal courts for the purpose of extorting damages. If only cases of a really criminal nature are taken into account, the percentage of convictions stands much higher, and, moreover, showed a satisfactory rise for the year 1913. The number of appeals by convicted persons to the Superior Court fell from 257 to 388 ; in 89·5 per cent. of the appeals disposed of the finding, and in 75·8 per cent. the finding and sentence of the Lower Courts were confirmed. In the Courts of Session and in the District Courts the percentages of appellants whose sentences were upheld were respectively 72·3 and 61·3, against 66·2 and 59·9 in 1912. In nine cases the local Government appealed against the acquittal of 11 persons. Six cases affecting seven persons were decided during the year. In one case the appeal was withdrawn, in one it was dismissed, in one case a re-trial was ordered, and in the remaining three cases the accused were convicted.

Burma.—As already noted, the total volume of crime in 1913 remained alarmingly large, and such decrease as did take place was confined almost entirely to minor offences. A reference made to Sessions Judges and District Magistrates as to the causes of the continuous growth of crime and criminal habits among the Burmese led to the submission of many interesting reports, but unfortunately the officers consulted showed considerable diversity of opinion as to the origin of the evil. But it is generally admitted that profound changes, moral, social, and economic, must infallibly ensue if a comparatively primitive people are suddenly introduced to all the ideas, resources, and luxuries of a more advanced civilisation. At the same time it was pointed out that, although the crime statistics of Burma compare unfavourably with those of other Indian provinces, a survey extending back over a number of years reveals no increase of serious crime in proportion to the population, and that in Lower Burma there has even been a slight improvement. In the actual working of the Criminal Courts in 1913 there were no very salient features. There was a decrease in the number of miscellaneous cases under the bad livelihood sections of the Criminal Procedure Code. Better judgment was, however, shown in their employment in Upper than in Lower Burma, as although fewer cases were also instituted in the former, the percentage of successes was much higher, rising approximately to 80.

Bihar and Orissa.—There was a slight decrease in the number of criminal offences reported, both under special and local laws and under the Penal Code. The proportion of the number of cases which were found to be false and of complaints dismissed to the number reported was slightly smaller than in 1912. In the Magistrates' Courts 48·9 per cent. of the persons accused, and in the Courts of Sessions 59·5 per cent. of the persons tried, as against 49·4 and 61·6 per cent. in 1912, respectively, were convicted. In the appellate jurisdiction the High Court decided 301 appeals against sentences of Courts of Session, and upheld in 236, and reversed in 26 instances the

orders passed. The percentage of appellants entirely unsuccessful was 71, against 75·2 in 1912. In the Sessions Courts the results of admitted appeals were less favourable, and in the Magistrates' Courts the results of appeals more favourable, on the whole, to appellants. Eighteen references for confirmation of the death sentence were decided during the year. In the case of nine out of the 26 persons concerned the the death sentence was confirmed; in 11 the sentence was commuted, and 2 persons were acquitted. Four out of five appeals by the local Government against orders of acquittal were dismissed. In the remaining case a retrial was directed.

Jails.

The variations of the jail population in British India during the last five years are shown in the following table:—

——	1913.	1912.	1911.	1910.	1909.
Jail population of all classes on 1st January -	101,908	91,876	102,991	104,015	104,413
Admissions during the year - - - -	492,308	492,820	470,513	479,243	493,592
Aggregate - - - -	594,216	584,696	573,504	583,258	598,005
Discharged during the year from all causes -	488,677	482,786	481,622	480,268	493,999
Jail population on 31st December - -	105,539	101,910	91,882	102,990	104,006
Convict population on 1st January - -	89,287	79,668	91,505	92,880	92,130
Admissions during the year - - - -	160,851	159,424	152,396	155,519	160,999
Aggregate - - - -	250,138	239,092	243,901	248,399	253,129
Released during the year - - - -	154,494	147,292	151,936	155,338	157,715
Transported beyond seas - - - -	1,566	1,382	1,138	1,106	828
Casualties, &c. - - - - - -	2,053	2,084	2,222	2,304	2,705
Convict population on 31st December - -	92,913	89,287	79,668	91,505	92,879

The daily average number of prisoners, which had steadily decreased since 1908, rose slightly in 1913 to nearly the figure of 1911. The fall in 1912 was, however, largely attributable to the release of convicts and civil prisoners on the occasion of the Delhi Durbar. The increase in 1913, was distributed among all provinces except the United Provinces of Agra and Oudh and Coorg, in which the figures continued to show decreases.

More than one-half of the total number of convicts received in jails during the year came from the classes engaged in agriculture and cattle tending, over 132,000 out of 160,000 are returned as illiterate.

The percentage of previously convicted prisoners was 17·29 as against 16·45 in 1912, while the number of youthful offenders fell from 726 to 626. The following table shows the nature and length of sentences of convicts admitted to jails in 1912 and 1913:—

Nature and Length of Sentence.	1913.	1912.
Not exceeding one month - - - - - - -	43,300	44,080
Above one month and not exceeding six months - - -	61,580	62,026
„ six months „ „ one year - - -	29,245	27,683
„ one year „ „ five years - - -	21,384	20,551
„ five years „ „ ten „ - - -	2,280	2,336
Exceeding ten years - - - - - - - -	312	235
Transportation beyond seas :—		
(*a*) for life - - - - - - - - -	1,148	1,050
(*b*) for a term - - - - - - - -	759	724
Sentenced to death - - - - - - - -	870	761

The number of offences committed by convicts fell notwithstanding the increase in the daily average population. The figures for the different provinces are given in the following table:—

(Jails.)

Province.	1913.			1912.		
	Daily Average Population.	Offences dealt with by Criminal Courts.	Offences dealt with by Superintendents.	Daily Average Population.	Offences dealt with by Criminal Courts.	Offences dealt with by Superintendents.
Madras - - - - -	9,046	9	10,581	8,875	8	10,690
Bombay - - - - -	9,534	42	20,944	8,905	14	20,733
Bengal - - - - -	10,612	7	25,578	10,092	16	21,776
United Provinces - - -	19,790	22	30,287	20,350	33	30,870
Punjab - - - - -	12,571	30	31,261	11,099	35	33,689
Burma - - - - -	15,761	23	28,461	15,291	33	34,236
Assam - - - - -	1,698	20	2,376	1,625	15	2,227
Central Provinces and Berar -	3,191	16	13,690	2,816	21	14,671
Bihar and Orissa - - -	6,332	7	15,968	5,926	7	16,210
North-West Frontier Province -	1,426	—	1,011	1,090	2	885
Coorg - - - - -	50	—	14	53	2	28
Ajmer-Merwara - - - -	271	—	198	242	1	226
Total - - - -	90,282	176	180,369	86,364	187	186,241

The total number of corporal punishments again showed a decrease from 409 to 361. The total number of cases in which penal diet (with and without solitary confinement) was prescribed was 7,568 as compared with 8,808 in the preceding year.

Total expenditure rose from £539,075 to £571,364, and total cash earnings decreased from £98,872 to £97,819; there was, consequently, an increase of £33,342 in the net cost to Government. Excluding Coorg, the provinces in which the average cost of maintenance was highest were, in the order named, Bengal, the Central Provinces, Assam, Bombay.

The improvement in the health condition of Indian jails was maintained in 1913. The death rate declined from 16·74 per mille in 1912 to 15·52 in 1913, the lowest ever recorded for Indian jails. The admissions to hospital were somewhat higher at 56,607 as against 54,098 in 1912, and the daily average number of sick rose from 2,401 to 2,565. The chief causes of sickness were malaria, abscess, ulcer and boil, and dysentery; and of death, tubercle of the lungs, dysentery and pneumonia. Cases of tubercle of the lungs decreased in all provinces except in the Punjab, the North Western Frontier Province and Assam. The death rate from this disease fell from 3·18 per mille in 1912 to 2·94 in 1913. With regard to malaria the striking improvement recorded in 1912 was not quite maintained. The admission ratio in the North West Frontier Province was particulary high. There were increases also in Bengal, Assam, the United Provinces and Bombay. On the other hand, Burma, Bihar and Orissa, the Central Provinces and Madras, record lower malaria admission figures than they have ever done before. Dysentery was again responsible for more deaths in Bengal than any other single cause, and it is the subject of a special inquiry which is being carried out under the auspices of the Indian Research Fund Association.

CHAPTER III.

FINANCE.

FORM OF ACCOUNTS.
REVENUE AND EXPENDITURE.
PROVINCIAL FINANCE.
HOME CHARGES.
CAPITAL OUTLAY ON PUBLIC WORKS.
DEBT.
CURRENCY AND EXCHANGE.
BANKS.

(For further details, see Statistical Abstract for British India, Tables 44 to 89 and 97.)

Form of Accounts.

The accounts of the Government of India show the transactions in India in rupees; the totals of these transactions are then converted into pounds, at the rate of Rs. 15 = £1: the sterling transactions in England are next stated: and the last two sets of figures are added together, so as to show in pounds the combined transactions in India and in England. The comparatively small sums which have to be brought to account owing to the fact that the remittances to defray the net expenditure in England are not effected at exactly sixteenpence to the rupee are included in a single line under the head of Exchange.

Revenue and Expenditure.

The Gross Revenue and Expenditure of British India in 1912–13 and 1913–14 were as follows:—

	1912–13.	1913–14.
	£	£
Revenue - - -	86,862,598	85,207,175
Expenditure - - -	83,754,964	82,894,752
Surplus -	£3,107,634	Surplus - £2,312,423

In these figures all receipts are included in the total of revenue and all outlay in the total of expenditure, with the one exception that the working expenses of railways and the surplus profits paid to certain railway companies are treated not as expenditure but as a deduction from Revenue. The financial position of the Government can, however, be much better appreciated by reference to the following table of Net Revenue and Expenditure, in which the interest charges as well as the working expenses of the Railways, the interest charges and working expenses of Irrigation Works, the cost of the cultivation and manufacture of opium, and the charges against other revenue-earning departments (excluding cost of collection) are treated as deductions from revenue, and the receipts of spending departments are treated as deductions from expenditure.

(Revenue and Expenditure.)

Net Revenue.

—	1912–13.		1913–14.		Increase (+) or *Decrease* (—).	
	£	£	£	£	£	£
Land Revenue, &c.:						
Land Revenue - -	20,519,247		20,621,481		+ 102,234	
Forest - - - -	2,146,667		2,219,936		+ 73,269	
Tributes from Native States.	419,367		412,618		— *6,749*	
		23,085,281		23,254,035		+ 168,754
Opium: Net Receipts -	—	4,515,685	—	606,348	—	*—3,909,337*
Taxation:						
Salt - - - -	3,077,118		3,182,501		+ 105,383	
Stamps - - -	5,009,774		5,260,120		+ 250,346	
Excise - - - -	8,199,349		8,790,777		+ 591,428	
Provincial Rates - -	551,071		179,688		— *371,383*	
Customs - - -	7,049,254		7,410,846		+ 361,592	
Income Tax - - -	1,731,167		1,936,772		+ 205,605	
Registration - - -	480,984		517,976		+ 36,992	
		26,098,717		27,278,680		+1,179,963
Commercial Undertakings:						
Post Office - - -	235,869		318,191		+ 82,322	
Telegraph - - -	68,178		7,344		— *60,834*	
Railways - - - -	4,803,354		4,789,533		— *13,821*	
Irrigation - - -	1,109,289		1,264,981		+ 155,692	
		6,216,690		6,380,049		+ 163,359
Mint - - - -	—	345,016	—	207,211	—	— *137,805*
Exchange - - -	—	100,879	—	119,741	—	+ 18,862
Total Net Revenue £		60,362,268		57,846,064		*—2,516,204*

Net Expenditure.

—	1912–13.		1913–14.		Increase (+) or *Decrease* (—).	
	£	£	£	£	£	£
Debt Services (excluding amounts charged under Railway Revenue Account and irrigation.	—	336,827	—	163,534	—	— *173,293*
Military Services:						
Army - - - - -	18,348,723		18,585,733		+ 237,010	
Marine - - - -	392,259		423,303		+ 31,044	
Military Works and Special Defence Works.	824,484		887,077		+ 62,593	
		19,565,466		19,896,113		+ 330,647
Collection of Revenue -	—	6,514,157	—	6,684,914	—	+ 170,757
Civil Services:						
Civil departments - -	15,353,908		16,525,913		+1,172,005	
Miscellaneous civil charges.	4,261,904		4,750,966		+ 489,062	
Civil works (including railways and irrigation works charged to revenue).	5,708,322		6,795,087		+1,086,765	
		25,324,134		28,071,966		+2,747,832
Famine Relief and Insurance	—	1,000,000	—	1,000,000	—	—
Provincial Adjustments:						
1. Charge against Revenue of the year arising from increase of provincial balances.	—	4,514,050	—	—	—	—
2. Diminution of the charge against Revenue of the year, owing to expenditure being met from provincial balances.	—	—	—	— *282,886*	—	*—4,796,936*
Total Net Expenditure charged against Revenue.		57,254,634		55,533,641		*—1,720,993*
Surplus (+) or Deficit (—)		+3,107,634		+2,312,423		— *795,211*

Thus there was in 1913–14, as compared with 1912–13, a decrease of net revenue of £2,516,204 which is more than accounted for by the decline under opium and a decrease in net expenditure of £1,720,993. Detailed explanations of the figures of revenue and expenditure are annually laid before Parliament in the Financial Statement of the Government of India and in the Explanatory Memorandum by the Secretary of State.

Provincial Finance.

Under the system of decentralisation of finance, begun by Lord Mayo in 1870 and subsequently developed by successive stages, the Government of India assigns to the Provincial Governments the whole or a fixed share of the revenue collected by them under certain heads. From the revenue so assigned the Provincial Governments are required to meet the whole of the expenditure within their respective provinces under certain heads, and a portion of the expenditure under other heads. The revenue retained by the Government of India for its own purposes and for meeting the expenditure incurred by the Secretary of State in England is described in the accounts as Imperial, and that which is assigned to the Provincial Governments is described as Provincial. The expenditure is similarly classified. The Provincial Settlements, by which the classification into Imperial and Provincial of the various items of revenue and expenditure and the ratio of division of the divided heads are governed, have been placed on a quasi-permanent basis with the object of giving to the Provincial Governments an expanding revenue with as large an interest as possible in the careful collection of it and in economy of expenditure. The principal heads of revenue which are wholly Imperial are Opium, Salt, Customs, Post Office, Telegraph, Mint, and Railways; the principal divided heads being Land Revenue, Irrigation, Stamps, Excise, Assessed Taxes, and Forests. Of Heads that are wholly Provincial the chief are Forest and Registration. On the expenditure side of the accounts the charge for Military Services and the charges under certain minor heads (Territorial and Political Pensions, Ecclesiastical, &c.) are entirely Imperial; "General Administration" is divided; most other important heads of expenditure are provincial.

The net revenue of 1912–13 and 1913–14 and the expenditure charged against the revenue of those years were divided into Imperial and Provincial as follows:—

—	1912–13.			1913–14.		
	Imperial.	Provincial.	Total.	Imperial.	Provincial.	Total.
	£	£	£	£	£	£
Net Revenue - -	31,973,700	28,388,568	60,362,268	31,791,279	26,054,785	57,846,064
Net Expenditure -	28,866,066	28,388,568	57,254,634	29,478,856	26,054,785	55,533,641

The equilibrium between Provincial Revenue and Provincial Expenditure, which is shown in these figures, is due to the fact that, if the Provincial Governments spend less in any year than their income, the saving is added to their balances and treated in the general accounts prepared by the Government of India as though it had been spent, and that similarly excess expenditure by Provincial Governments, being met from their balances, is not charged in the accounts prepared by the Government of India against the revenues of the year. In 1912–13 the Provincial Governments added to their balances the sum of £4,514,050, in 1913–14 they drew on their balances to the extent of £282,886.

Contribution by each Province towards Expenditure of the Central Government.

The following table shows for each province separately the amount by which the total revenue collected therein (whether classified in the accounts as Imperial or Provincial) exceeds or falls short of the total expenditure incurred therein, and thus indicates the extent to which each province contributes towards the expenditure of the Government of India and the Secretary of State, or draws upon the general revenues:—

(Provincial Finance.)

Provinces, &c.	1912–13.		Provinces, &c.	1913–14.	
	Excess of Revenue.	Excess of Expenditure.		Excess of Revenue.	Excess of Expenditure.
	£	£		£	£
Bengal - - -	6,500,805	—	Bengal - - -	5,385,947	—
Bihar and Orissa - -	323,737	—	Bihar and Orissa - -	498,647	—
Assam - - -	—	*82,167*	Assam - - -	77,441	—
United Provinces - -	1,904,029	—	United Provinces -	1,304,477	—
Punjab - - -	1,453,432	—	Punjab - - -	1,716,428	—
Burma - - -	2,184,079	—	Burma - - -	2,637,242	—
Central Provinces and Berar.	125,042	—	Central Provinces and Berar.	278,576	—
Madras - - -	4,313,692	—	Madras - - -	4,972,022	—
Bombay - - -	6,026,471	—	Bombay - - -	5,482,927	—
North-West Frontier Province.	—	*445,846*	North-West Frontier Province.	—	*499,166*
India, General - -	106,652	—	India, General - -	—	*87,063*
England - - -	—	*19,302,292*	England - - -	—	*19,455,055*
Net result - -	Surplus £3,107,634		Net result - -	Surplus £2,312,423	

Home Charges.

The net expenditure in England chargeable to revenue, as shown in the preceding table, may be classified under the following principal heads :—

——	1912–13.	1913–14.
	£	£
Interest and management of debt, and payment of interest and annuities on account of railways and irrigation works.	10,940,421	10,948,386
Payments in connection with Civil Departments in India - -	157,671	98,850
India Office (excluding pensions) - - - - -	203,253	205,657
Army and marine effective charges - - - - -	1,141,881	1,127,512
Stores of all kinds charged against revenue - - - -	1,345,907	1,528,334
Furlough allowances - - - - - - -	994,480	1,046,122
Non-effective charges (pensions and gratuities) - - - -	4,518,679	4,500,194
Total - - - - £	19,302,292	19,455,055

Capital Outlay on Public Works.

The total capital outlay on railways and irrigation works during the two years was as follows :—

——	1912–13.	1913–14.
Amount supplied by State borrowing or from the Cash Balances, without being charged against the Revenue of the year :—	£	£
State Railways - - - - - - -	8,799,563	10,448,533
Irrigation Works - - - - - - -	1,408,329	1,282,262
Capital raised through Railway Companies - - - -	13,333	34,667
Amount defrayed from Revenue :—		
Provincial and local Railways - - - - -	4,266	1,414
Protective Railways - - - - - - -	41,411	8,576
Protective Irrigation Works - - - - - -	426,501	491,424
Other Irrigation Works* - - - - - -	45,291	98,864
Total Direct Outlay by the State - -	10,738,694	12,365,740
Outlay by companies guaranteed or subsidised by Government - -	1,083,376	1,823,070
Branch lines not on firm guarantee - - - - -	58,951	179,233
Total Capital Outlay on Railways and Irrigation - - £	11,881,021	14,368,043

* Excluding capital outlay on the minor works, which is met from revenue.

Debt.

Amount of Debt.—The debt of India on the 1st April 1913 was :—

	£
In England - - - - - -	179,179,193
In India, Rs. 1,42,83,64,790, equivalent, at 1*s.* 4*d.* the rupee, to - - - - - -	95,224,319
Total - - - - -	£274,403,512

1913–14.—In England £500,000 India bonds and £1,281,200 Railway debenture bonds were discharged during the year. No fresh debt was raised.

In India a 3½ per cent. rupee loan of 3 crores was issued in July 1913 at an average price of Rs. 96 : 8 : 8.

The total debt outstanding on 31st March 1914 was as follows :—

	£
In England - - - - - -	177,064,757
In India, Rs. 1,45,68,55,790, equivalent, at 1*s.* 4*d.* the rupee, to - - - - - -	97,123,719
Total - - - - -	£274,188,476

Classification of the Debt.—The total debt is classified in the accounts as (1) Public Works Debt, (2) Ordinary Debt. The amount entered as belonging to the former category is the equivalent of the total capital expenditure which has been incurred by the State on public works, together with the amount advanced to railway companies for capital expenditure ; the " Ordinary Debt " consists of the remainder of the debt. In any year in which, owing to the use of surplus revenue or deposits for the construction of public works, the capital expenditure of the year exceeds the amount of debt incurred in the year, the effect of this system of classification is to cause a decrease to be shown in the amount of the Ordinary Debt.

The classification of the debt outstanding on the 31st March 1913 and the 31st March 1914 was as follows :—

	1913.	1914.
(*a*) Permanent debt :—	£	£
Debt for railways - - - -	211,832,819	221,984,419
Debt for irrigation works - - -	37,552,030	39,440,938
For initial expenditure on the new capital at Delhi - - - - -	119,886	567,020
Total of public works debt - -	249,504,735	261,992,377
Balance, being ordinary debt - -	24,898,777	12,196,099
Total permanent debt on 31st March	274,403,512	274,188,476
(*b*) Temporary debt incurred on security of India bills :—		
Debt for railways - - - -	Nil.	Nil.
Debt for general purposes - - -	Nil.	Nil.
Total debt (permanent and temporary) on 31st March - - -	£274,403,512	£274,188,476

The borrowing powers of the Secretary of State for India in Council are regulated by Acts of Parliament, the last being the East India Loans (Railways and Irrigation) Act, 1910, under which powers were granted to borrow in the United Kingdom, as and when necessary, up to £25,000,000 for the purposes of Indian public works.

Currency and Exchange.

Currency Legislation.—Up to 1893 the standard of value in India was silver, the rupee (180 grains of silver, eleven-twelfths fine) and the half rupee being full legal tender for the payment of debts, and the mints being open to the receipt from the public of silver for coinage without limit. In view of the embarrassment arising from the depreciation in the sterling value of silver it was decided in 1893, in accordance with the recommendation of Lord Herschell's Committe, that silver should no longer be coined on presentation by the public, but the right was given to the public to demand from Government rupees in exchange for gold at the rate of 15 rupees for £1 without limit of amount. Silver thus ceased to be the standard of value in India (though it is still used as before as the chief material of currency); and the exchange value of the rupee ceased to coincide with the price of silver. In 1898 a Committee was appointed, under the chairmanship of the late Lord Wolverhampton, then Sir Henry Fowler, to consider certain proposals made by the Government of India for the completion of the policy adopted in 1893. Sir Henry Fowler's Committee reported in 1899, and recommended that the decisions reached on the recommendations of Lord Herschell's Committee in 1893 should be maintained, and that the English sovereign should be declared legal tender in India at the rate of one sovereign to fifteen rupees (*i.e.*, 1*s.* 4*d.* to the rupee). These recommendations were accepted by the Government. Since 1898–9 the exchange value of the rupee has remained steady at about 1*s.* 4*d.* In 1913 a Royal Commission on Indian Finance and Currency was appointed under the Chairmanship of the Right Hon. Austen Chamberlain, M.P. The Commission, which reported early in 1914, generally approved the measures taken since the date of Sir Henry Fowler's Committee for the maintenance of the exchange value of the rupee. The report, containing a number of recommendations on particular aspects of Indian currency, is now under consideration, though a decision on the main questions raised is likely to be deferred in view of the abnormal conditions arising out of the war.

Gold Standard Reserve.—From the 1st April 1900, the net profit from the coinage of rupees has been held as a special reserve, apart from the ordinary revenue. Up to 1906 practically the whole amount was remitted to England and applied to the purchase of British Government securities, the interest realised being added to the fund and invested, but in that year it was decided that a portion of the reserve should in future be held in silver in India. In 1907–08 and 1908–09 half the profits on coinage were applied to capital expenditure on railways. The sums shown in the marginal table represent the amount of the profits on coinage in the years from 1900–01 to 1913–14 credited to the reserve under the arrangements above described. In June 1912 it was decided that the interest on investments and the profits on coinage thereafter received, except profits retained in India for bringing up the silver branch of the Reserve, to a sum of £4,000,000 should be held in gold at the Bank of England until the amount so held reached £5,000,000, and that no portion of the profits on coinage should be used for railway purposes until the total sterling assets of the Gold Standard Reserve amounted to at least £25,000,000. The Royal Commission on Indian Finance and Currency has made certain recommendations regarding the Gold Standard Reserve. The more important of these proposals are reserved for decision hereafter, but in August 1914, in accordance with the Commission's recommendation, the silver branch of the Reserve was abolished, and the six crores of rupees held therein were exchanged for a corresponding amount in gold (£4,000,000) from the Paper Currency Reserve.

	£
1900–01	3,031,294
1901–02	415,100
1902–03	264,028
1903–04	2,627,575
1904–05	1,790,380
1905–06	3,677,880
1906–07	4,014,426
1907–08	1,123,603
1908–09	51
1909–10	25,190
1910–11	—
1911–12	—
1912–13	3,265,698
1913–14	2,150,000

The constitution of the Reserve on the 31st March 1914 was as follows:—

	£
Sterling securities held in England (market value)	17,165,069
Cash held in England on account of the Reserve	24,962
Gold held at the Bank of England	4,320,000
Rupees held in India on account of the Reserve	4,000,000
Due to the Fund from Treasury balances in India	22,199
Total	£25,532,230

(Currency and Exchange.)

Exchange and Remittance.—During the years 1911–12, 1912–13, and 1913–14 the sale by the Secretary of State of bills and telegraphic transfers on India was as follows:—

1911–12, £27,058,550 at an average rate of 1*s.* 4·083*d.* per rupee.
1912–13, £25,743,710 „ „ 1*s.* 4·058*d.* „
1913–14, £31,200,827 „ „ 1*s.* 4·070*d.* „

The regular demand for the bills and telegraphic transfers sold by the Secretary of State is due to the fact that they enable merchants and bankers to make the payments in India which are required mainly in consequence of the normal excess of India's exports over her imports.

Coinage.—The silver coinage at the Indian Mints was:—

	1912–13. Number coined.	1913–14. Number coined.
Rupees	187,529,154	121,360,506
Half-rupees	4,894,669	4,548,200
Quarter-rupees	11,863,433	20,635,238
Eighth-rupees	19,420,777	22,200,975
British Dollars (for export to Hong Kong)	5,672,075	1,566,693
„ „ subsidiary pieces	444,628	191,802
Ceylon subsidiary pieces	—	2,600,000

The value of the copper, bronze, and nickel coinage during the two years was as follows:—

	1912–13. £	1913–14. £
Copper	5,519	2,000
Bronze	127,897	139,029
Nickel	165,733	193,000

Paper Currency.—Under the Indian Paper Currency Act, 1910 (II. of 1910), which consolidated and amended the law relating to Paper Currency, Notes of the following denominations, viz., Rs. 5, Rs. 10, Rs. 50, Rs. 100, Rs. 500, Rs. 1,000, and Rs. 10,000 are issued to the public. The issue of 20-rupee notes has been discontinued.

There are seven currency circles having their headquarters at Calcutta, Cawnpore, Lahore, Bombay, Karachi, Madras, and Rangoon respectively.

Prior to the passing of the Paper Currency Act of 1910 the 5-rupee note alone was legal tender throughout India and payable at any office of issue in the country; notes of higher value were legal tender only within the currency circles in which they were issued. The Act of 1910 "universalised" notes of a denominational value of 10 and 50 rupees, and thus marked an important stage in the development of the paper currency system of India. The 100-rupee note was also made universal from the 1st April 1911. A reserve is held against the notes equal to their full value in (1) gold (2) silver, and (3) securities (value taken at cost price). The law in force during the period in review provided that securities of the Government of India and of the British Government might be held as part of the reserve up to a limit of £9,333,300 (Rs. 14,00,00,000),* of which the British Government securities might not exceed £2,667,000 (Rs. 4,00,00,000); the remainder of the reserve must be held in gold or silver coin or bullion. On the 31st March 1914 the value of the total amount of notes in circulation was £44,078,400, being less by £1,906,800 than on the corresponding date in 1913. Excluding the notes held in the reserve and other treasuries (£m. 6·6) and by the Presidency Banks at their Head Offices £m. 4), the active circulation among the people on 31 March 1914 was £m. 33·3,

* By the Indian Paper Currency Amendment Ordinance, 1915, power was taken to raise the total amount of the securities that might be held in the reserve from Rs. 14,00,00,000 to Rs. 20,00,00,000. This Ordinance is of a temporary character only. Owing to the prevalence of exceptional conditions no decision has yet been taken on the recommendations of the Royal Commission on Indian Finance and Currency, who, *inter alia*, have recommended an increase in the fiduciary portion of the Indian Paper Currency Reserve.

(Currency and Exchange.)

as compared with £m. 31·5 on 31 March 1913. The constitution of the Paper Currency Reserve was as follows:—

	£
Gold	21,056,900
Silver coin	13,689,900
Silver bullion	—
Securities of the Government of India	6,666,700
Securities of the British Government	2,666,600
	44,080,100
Deduct amount due on bills drawn by one circle on another	1,700
	£44,078,400

Banks.

The Presidency Banks.—The three Presidency Banks of Bengal, Madras, and Bombay are bodies corporate, constituted under the Presidency Banks Act of 1876. This Act, as modified by subsequent Acts, regulates the constitution and management of the banks and prescribes the kind of business that they may undertake. The most important statutory restrictions are that they may not borrow out of India, nor draw, discount, buy, or sell bills of exchange, or other negotiable securities payable outside India or Ceylon, except that, when they receive interest, or the proceeds of the sale of securities, on behalf of their principals, they may draw bills of exchange or grant letters of credit, payable out of India, for the purpose of remitting such interest or proceeds at the risk of the principals. The effect of these restrictions is to prevent the Presidency Banks from dealing in foreign exchanges or otherwise employing their capital out of India.

The Presidency Banks, in accordance with the provisions of agreements into which the Government of India has entered with them, act as bankers for the Government of India, paying and receiving money on its behalf and managing the public debt; they receive in return a fixed annual payment, and a commission on the amount of the public debt which they manage. The Government also undertakes to keep a minimum balance at each bank, or, failing this, to pay interest on the deficiency.

The following table shows the extent of the business of the Presidency Banks on 31st December 1914:—

—	Bank of Bengal.	Bank of Madras.	Bank of Bombay.
	£	£	£
Paid-up capital	1,333,333	500,000	666,667
Reserve	1,333,333	506,667	733,333
Public deposits	1,601,420	607,009	1,248,000
Other deposits	14,113,878	5,079,917	7,275,596

Banks registered under the Indian Companies Act.—The number of joint stock companies registered as engaged in banking or loan operations in India, on 31st March 1913, was 513. The majority of these companies consist of societies with a relatively small capital.

In the autumn and winter of 1913–14 there was a banking and commercial crisis of some severity in Northern and Western India, and among the more important institutions that failed were the People's Bank, the Credit Bank, and the Indian Specie Bank. The question of the future regulation of banking methods in India is engaging attention.

CHAPTER IV.

LAND REVENUE.

LAND TENURES.
LAND LEGISLATION.
REVENUE SURVEYS, SETTLEMENTS, &C.
REVENUE ASSESSMENTS, &C.
COLLECTION OF THE REVENUE.
WARDS' AND OTHER ESTATES.

(*For further details see Statistical Abstract of British India, Tables* 45 *to* 49 *and* 122.)

The present chapter deals with Land Revenue (including revenue from Capitation Tax, Fisheries, &c.) and with subjects appertaining thereto. From time immemorial a share of the produce of the land has been the chief source of public revenue in India. Land revenue is still the mainstay of the Government, constituting about 36 per cent. of the total net revenue that accrues to the Indian Exchequer.

Land Tenures.

Owing to its far-reaching social and political effects the proper administration of the land revenue has always been one of the chief problems of the Indian Government, and during the early years of British rule the best methods of assessment were keenly debated. In 1793 Lord Cornwallis introduced into Bengal a permanent settlement, by which the demand of the State was fixed and made for ever unalterable. Other systems were gradually evolved, and at length over the greater part of India a system of periodical settlements was established, under which the State demand is revised at recurring periods of 20 to 30 years, the latter period prevailing in all the larger provinces except the Punjab and the Central Provinces, where settlements are usually made for 20 years, and in Burma, where the term of 20 years is now being adopted. At these settlements careful surveys are made of all holdings and records of rights in the land. Under the system of periodical revisions of the land assessment the State secures a share in the increased rental value arising from the general progress of the community. Of late years measures have been taken to exempt improvements from assessment, and generally to make the enforcement of the rights of the State as little burdensome as is possible to the revenue-payer. Periodical revision also affords the opportunity of reducing the assessment in villages or tracts which have declined in prosperity, and of correcting inequalities arising from any cause.

When the revenue is assessed by the State, permanently or temporarily, on an individual or community owning an estate, and occupying a position identical with, or analogous to, that of a landlord, the assessment is known as *zamindari;* where the revenue is imposed on individuals who are, or who represent, the actual occupants of holdings, the assessment is known as *ryotwari.* Under either system there may be rent-paying sub-tenants. In southern India, where most of the land is held by petty occupiers direct from the State, the occupiers have the right to retain their holdings so long as they pay the revenue due from them. In both the permanently and temporarily settled districts of northern India laws have been passed to safeguard tenant rights. The permanently settled districts, in which all holdings are *zamindari*, cover most of Bengal and Bihar, and parts of Madras and the United Provinces. As regards temporarily settled districts, *zamindari* estates, held by proprietary groups or large individual proprietors, are chiefly found in the Punjab, the United Provinces, the Central Provinces, and Orissa, while in Bombay and Sind, Burma, Assam, Berar, and two-thirds of Madras the system of *ryotwari*, or peasant proprietors, prevails.

The appended table gives the acreage of the surveyed areas in which the various tenures prevailed during 1912–13. The figures include waste and uncultivated areas as well as cultivated lands, and merely indicate the extent to which the two systems respectively prevail.

(Land Tenures.)

Figures in Thousands of Acres, omitting 000.

Province.	*Ryotwari* (Peasant Proprietors).	*Zamindari* (Individual Proprietors or Village Communities).		Total.
		Permanently settled.	Temporarily settled.	
Burma	108,714	—	—	108,714
Assam	25,910	3,930	1,466	31,306
Bengal	—	39,211	11,269	50,480
Bihar and Orissa	—	41,452	11,760	53,212
United Provinces of Agra and Oudh	—	7,541	60,793	68,334
Punjab	—	—	61,856	61,856
North-West Frontier Province	—	—	8,438	8,438
Bombay	44,876	—	3,753	48,629
Sind	30,257	—	—	30,257
Central Provinces	1,856	—	40,612	42,468
Berar	9,147	—	—	9,147
Madras	61,577	29,179	—	90,756
Ajmere-Merwara	—	974	797	1,771
Coorg and Manpur*	1,044	—	—	1,044
Total	283,381	122,287	200,744	606,412

* Manpur is an isolated British *pargana* in Central India.

It will thus be seen that about 47 per cent. of the total area is held by peasant proprietors, while 20 per cent. is held by permanently settled, and 33 per cent. by temporarily settled, *zamindari* proprietors.

Tenant Right and Land Legislation.

Bengal, Bihar and Orissa, and Assam.—Throughout the major part of Bengal and Bihar the relations between landlord and tenant are governed by the Bengal Tenancy Act, which continued to work satisfactorily. Landlords still tend to withhold rent receipts, and an inquiry as to the best way of preventing this was made in Bihar. The levy of illegal exactions in the form of cesses in addition to rents has by no means ceased, but the tenants are gradually learning to know their rights and to resist illegal demands. Settlement operations and the gradual preparation of a Record of Rights for the Province have taught tenants their rights and privileges, and the general spread of education tends to the same result. During 1913–14 there were not many cases of serious friction between landlord and tenant, though the preparation of the Record of Rights, which is now in progress, cannot fail in some degree to cause strained relations for the time being. A modification is contemplated of the law relating to the transferability of occupancy holdings without the landlord's consent. Chota Nagpur was given in 1908 a special agrarian law of its own, passed to amend and codify the existing laws. It is said to be working well. The special Tenancy Bill introduced for Orissa previous to the partition of 1912 was passed in May 1913, with certain amendments.

United Provinces.—Owing to the protection afforded by the Agra Tenancy Act there has been a growth in the area occupied by tenants of 12 years' standing. Out of 20½ million acres held by ordinary tenants 14,288,498 acres were protected (that is, the landlords are debarred from arbitrary ejectment) on 30th September 1913—an increase of 154,836 acres in the year. The number of suits for ejectment against tenants not thus protected shows an unsatisfactory tendency to rise. In Oudh, where no length of occupation confers occupancy right, the number of suits for ejectment is becoming a matter for still more serious consideration.

The Bundelkhand Alienation of Land Act, 1903, which is framed on the lines of the Punjab Land Alienation Act, continues to work satisfactorily. Its object is to place restrictions on the sale or other permanent alienation of land by the agricultural castes to the non-agricultural classes. Sales of land as between agriculturists and non-agriculturists showed considerable net transfer of land to the possession of the former in the districts to which the Act applies. Attempts to evade the Act were few. An amending Bill is under consideration which will extend the restrictions on alienation to further districts.

Punjab.—The Punjab Land Alienation Act of 1900 was designed to protect hereditary agricultural tribes from expropriation by money-lenders. Its effect in preventing the permanent transfer of land from agriculturists to non-agriculturists is undoubted, as shown by the figures for sales. The anxiety of all classes to be notified as agricultural tribes disposes of the allegation that credit has been impaired. On the contrary, the money-lending classes are beginning more freely to provide money for the land under approved forms of security. Evasions of the Act by non-agriculturists employing a dummy transferee are on the decrease.

North-West Frontier Province.—The Punjab Alienation of Land Act, 1900, as modified by the North-West Frontier Province Regulation No. I. of 1904, and as amended in 1908, has now been operative for nine years in three districts. The Act is appreciated by the zamindars and its operations appear to be beneficial.

Madras.—The difficulties in the working of the important measure for defining and regulating the position of tenants in the *zamindari* areas, known as the Madras Estates Land Act of 1908, are settling down as its provisions are getting to be better understood. Under this Act the status of occupancy ryot is recognised and both occupancy and non-occupancy ryots are protected from ejectment and enhancement of rent. The relations between landlord and tenant are on the whole fairly satisfactory.

Bombay.—The extension of the Deccan Agriculturists' Relief Act in 1905 from four selected districts to other parts of the presidency, has induced the cultivator to adopt sounder methods. Its working has been fortified by the restrictions imposed in certain parts on the alienation of land by the special tenure created by the Act of 1901. The ease with which the tenant can obtain outside employment has greatly strengthened his position as against the landlord.

During 1912–13 conciliators under the Deccan Agriculturists' Relief Act were abolished, and, as the result of an inquiry into its working, an amending Act is in contemplation.

Revenue Surveys and Settlements and Land Records.

For the purpose of land revenue assessment revenue surveys are necessary. Cadastral maps showing the holdings are prepared, and corresponding field registers are made showing from whom the revenue assessment is to be realised, and also the amount of such assessment. The record also usually exhibits the existing rights in, and encumbrances on, the land. As the revenue records are carefully revised at short intervals a very extensive and complete system of registration by public entry is being built up, and transfers of land are easily attested. Settlements (or re-settlements) in new or in temporarily settled areas are always in progress. In consequence of improved methods the period occupied in the process is much shorter than formerly, and involves comparatively little harassment of the people.

Bengal.—The preparation of a complete survey and record of rights for the permanently settled area was inaugurated in 1891. Out of the total area in Bengal (including temporarily settled land) of about 64,000 square miles to which the Bengal Tenancy Act applies, the record had by September 1913, been completed for 10,921 square miles (including two entire districts) and was in course of preparation in 15 districts for a total of 12,496 square miles. In permanently settled tracts (where the record is for the purposes of general well-being and not for assessment of revenue), three-fourths of the cost is recovered from the landlords and tenants concerned. The programme for the year was fully carried out in most cases. The work is nearing completion in Faridpur and Jalpaiguri. The cost was considerable in the earlier stages, but, with experience, extensive economies have been effected. The experiment of printing the record has proved a conspicuous success. In some districts there is considerable hostility to the settlement on the part of big landowners, who have hitherto been able to treat as a dead letter the provisions of the Tenancy Act against the enhancement of rent; but among the Rayats it is generally welcomed.

Minor settlement operations were carried on under the supervision of district officers in 15 districts.

Bihar and Orissa.—The same programme for a complete Record of Rights, to cover permanently settled estates as well as temporarily settled, is being carried out here

as in Bengal. Of the whole area (about 78,000 square miles) for which such record is required, only about 16,500 remained to be dealt with on 30th September 1913, and in about half this area operations were in various stages of progress. During 1912–13, 4,259 square miles were completed, the programme of the year having been practically carried out in full. An approximate programme of operations for the next 20 years has been prepared. The reform of the system of cess-revaluation is under consideration.

Assam.—Survey operations in Assam are under the same direction as those in Bengal for the present. By the end of 1913–14 cadastral survey and preparation of Record of Rights were complete in over a quarter of the area of the plains district, but the latter includes much waste land for which they are not at present required.

United Provinces.—During 1912–13 the regular settlement of Etawah and Fatehpur continued. The revision of Allahabad settlement was undertaken during the year. Operations were sanctioned or in progress in Naini Tal and Pilibhit, besides certain quinquennial revisions in Bundelkhand. The village maps are being brought up to date and, in order that they may be kept so, *patwaris* are receiving special instruction in methods of revision. Thus it is hoped to dispense with re-survey at the next settlements.

Punjab.—Settlement operations were in progress in ten districts. The final report of Amritsar and Gujranwala were submitted during the year. The total increase in assessments sanctioned during the year amounted to £75,320 and in almost all cases have exceeded the estimate. The increase is greatest in Lyallpur, where 237,580 acres have been re-assessed at an enhanced rate of £22,000 as against a previous £5,000. This is owing to the development of the Lower Chenab Colony. Other large increases occur in Ferozepore, Lahore, Sialkot, and Hoshiarpur.

North-West Frontier Province.—The land tenures and assessment methods of the Frontier Province resemble generally those of the Punjab. Records of Rights were reported in 1912–13 to be in good condition: the Land Records Staff was chiefly employed on mutation work.

Burma.—All the 32 districts proposed for revenue settlement have now come under supplementary survey. The remaining five districts are hilly and sparsely populated, and it has been decided that settlement is not at present necessary. The area under supplementary survey (51,452 square miles) increased in 1913–14 owing chiefly to estuarial accretion in Pegu. New settlements were introduced in Insein, Amherst, and Yamethin, and in three other districts where, according to the usual policy in cases of enhanced assessment, intermediate rates had at first been applied, full rates were introduced. Owing to the very low rates of the first settlements, revisions always produce an enhanced demand. The total rural assessments (£2,159,458) showed an increase of £54,132 over 1912–13. The urban area continued to expand. Special staffs were employed on revision and extension surveys in two districts in each case. The cost of the settlements completed during the year was 4½ per cent. of the assessment.

Central Provinces and Berar.—Revision operations took place in five districts, and correction of maps and records preparatory to settlement in four more. The Berar staff was increased in view of the extra work in connection with the introduction of the new Record of Rights.

Madras.—Six survey parties were at work during 1912–13 in seven districts. They dealt with 2,140 square miles—mostly revisional survey. Five settlement parties continued their operations. The aggregate land revenue demand of the districts either newly settled or re-settled is £3,586,838, an increase of £712,232 on the demand prior to settlement or re-settlement. The cost of the settlement operations up to the end of 1912–13 has been £1,254,996. The Land Records Department was, as in previous years, mainly confined to measures preliminary to maintenance.

Bombay.—The survey and settlement officers were engaged in measurement, classification, and other work of a routine character. An important feature was the extensive programme of measuring subdivisions. Good progress was made with the Record of Rights, which has been completed for Government villages in the Presidency proper, but is still in process of compilation for alienated villages and for Sind. A new edition is being prepared.

Revenue Assessments and Incidence.

Land revenue is realised in the form of an annual payment of cash, the assessment rates being subject to no alteration during the term of a settlement, though the amount leviable in any year may vary according to the area actually cultivated or to the condition of the harvest. Except in Bombay (where the assessment is not fixed in terms of produce), the land revenue is assessed so as to represent a share, not of the gross, but of the *net* produce (or net assets). In the zamindari, or landlord settlements, that widely prevail in Northern India, the cultivating tenant pays rent to a landlord. Of this rent the Government usually takes rather less than 50 per cent. as land revenue.

—	Incidence (in Rupees and Annas) of Land Revenue Assessment in fully assessed Areas.	
	Per Acre of cultivated Area.	Per Head of Population.
	1912–13.	1912–13.
	Rs. a.	Rs. a.
Upper Burma - - -	1 13	2 3
Lower Burma - - -	2 13	—
Assam - - - -	—	1 3*
Bengal - - - -	1 1	11
Bihar and Orissa - - -	9	8
Agra - - - -	1 13	1 8
Oudh - - - -	1 15	1 8
Punjab - - - -	1 8	—
North-West Frontier Province -	15	—
Sind - - - -	2 16	—
Bombay - - - -	1 9	2 7
Central Provinces - -	10	1 1
Berar - - - -	1 5	3 0
Madras - - - -	2 1†	1 10†

* Figures for 1910–11. † Figures for 1908–9.

The incidence of land revenue in fully assessed cultivated areas is shown in the marginal table. The most noticeable features are the low rates in the permanently settled areas and in the Central Provinces. In Madras and Sind the land revenue rates include the charges for irrigation.

It is certain that the Government now takes a very much smaller share of the gross product than was customary in pre-British days. The incidence of ordinary land revenue for all British India in 1913–14 works out at 1*s.* 8d. per head of the population.

The Government makes liberal reductions of assessments in cases of local deterioration, where such reductions cannot be claimed under the terms of settlement.

Collection of the Revenue.

The fluctuations in the gross land revenue receipts (exclusive of those credited to irrigation) in past years may be seen from the following table :—

Year.	Land Revenue Receipts (excluding those due to Irrigation).	Variation (Average of Five Years, 1881–5 = 100).
	£	
1881–5 (five years' average) - - - - -	14,748,000	100·0
1886–90 „ „ (annexation of Upper Burma) -	15,445,000	104·7
1891–5 „ „ - - - -	16,522,000	112·0
1896–1900 „ „ (includes two famines) - -	17,217,000	116·7
1900–5 „ „ - - - - -	18,483,000	125·3
1906–11 „ „ - - - - -	20,096,000	136·3
1911–12 (single year) - - - - - -	20,765,000	140·8
1912–13 „ „ - - - - - -	21,282,000	144·3
1913–14 „ „ - - - - - -	21,392,000	145·1

The general increase in land revenue is attributable to a variety of causes—to the inclusion of new territory (as Upper Burma); to the bringing of new land under cultivation as in Lower Burma, the Central Provinces, Sind, and the Punjab; to the inclusion of Berar since 1st October 1902; and to the progress of settlements and re-settlements, which, owing to the generally enhanced values of land, usually result

(Collection of the Revenue.)

in additions to the land revenue. Irrigation canals have enabled the cultivable area to be greatly extended, especially in Sind and the Punjab. The land revenue is usually paid punctually, and it is seldom necessary to have recourse to imprisonment, sales of land, or other processes for the recovery of arrears.

The land revenue receipts in 1912–13 and 1913–14 were made up as follows:—

	1912–13.	1913–14.
	£	£
Ordinary land revenue	20,380,505	20,658,326
Assessment of alienated lands, less quit-rents*	654,700	650,077
Sale of proprietary right of Government in land†	317,173	154,032
Capitation tax, or house tax levied in lieu thereof‡	649,987	666,880
Sale of waste lands and redemption of land revenue	26,930	61,501
Recovery of survey and settlement charges§	86,993	132,493
Fisheries and other receipts	704,425	752,640
	£22,820,713	£23,075,949
Deduct portion of land revenue due to irrigation	1,538,245	1,684,374
Total land revenue	£21,282,468	£21,391,575

The charges in 1913–14 included £1,750,159 for district administration, £512,978 for survey and settlement charges, £973,611 for land records, and £747,946 direct charges of collection. The total charges were £3,986,422.

The total advances made by Government to cultivators during 1913–14 amounted to £1,418,514, and the total amount of advances outstanding at the close of the year was £3,162,135. The advances made during the year were chiefly for the relief of agriculturists, but partly for the improvement of land and for loans to co-operative credit societies.

The progress of the land revenue will now be reviewed province by province. The figures are taken from the land revenue reports relating to the agricultural year, while those given above are from the corrected Accounts of the Government of India, and relate to the financial year.

Bengal.—The land revenue of Bengal remains fairly constant, as most of the province is under permanent settlement. The revenue demand for 1913–14, excluding arrears, amounted to £1,807,970, including £1,436,437 from 91,604 permanently settled estates, £105,874 from 3,072 temporarily settled estates, and £265,659 from 2,161 estates under the direct management of Government. The percentage of total collections on total demand (including arrears) was 94·87 per cent. Remissions were trifling. The number of estates, &c. which became liable to sale for non-payment of Government revenue fell to 12,467, of which only 811 were actually sold. Under the Certificate Act of 1913, 53,808 certificates were filed for recovery of arrears of revenue (exclusive of cess), compared with 69,677 in 1912–13; payment was generally secured on issue of notices or on attachment of property, but actual sale was necessary in 1,576 cases, and warrants were issued in 733 cases, 19 defaulters being imprisoned. Advances under the Loans Acts amounted to £27,165.

Bihar and Orissa.—The total current demand was £998,370, viz., £711,930 from permanently settled, and £172,636 from temporarily settled estates, and £113,804 from estates held by Government. The percentage of total collection on total demand (including arrears) was 98·04. Proceedings under the sale laws included 368 sales (out of 9,308 estates which became liable to sale), while under the Public Demands Recovery Act, 31,027 certificates (excluding those for cesses) were filed; in 2,382 cases recourse to sale was necessary, and 12 persons were imprisoned. Advances under the Loans Acts amounted to £37,669.

Assam.—Land revenue demand (current) was £481,437, of which 96·22 was realised. Demand notices were issued to 58,582 persons; sales were effected in 763 cases. Advances amounting to £20,787 were made under the Agriculturists' Loans Act. No advance was made under the Land Improvement Act.

* Mostly from Bombay. † Mostly from Punjab. ‡ Mostly from Burma.
§ From Bengal and Bihar and Orissa.

United Provinces.—The land revenue demand in 1912–13 (the latest year for which information is available) was £4,323,812. About £16,300 was remitted or suspended, and the collections were short of the demand by only £137. Other sources of revenue, not strictly classed as land revenue, are the occupiers' rate (receipts, £579,376) and the owners' rate (receipts, £12,278), which constitute payments for irrigation, besides cesses, &c. Advances under the Loans Acts amounted to £201,353 —a large increase, due to a large demand for funds to purchase cattle and seed for *Rabi* and sugarcane sowings. Advances for permanent improvements increased owing chiefly to expenditure on wells. The repayment of loans was most satisfactory. The number of coercive processes continued to decrease owing to continued good years and to reforms in the use of the various processes. There was a particularly satisfactory decrease in the severer processes. Only 13 sales of unmoveable property took place.

Punjab.—The fixed land revenue demand stood in 1913–14 at £1,414,636; 96·2 of the current demand was collected. Re-assessment of canal areas and increased cultivation has yielded a considerable increase of "fluctuating" land revenue, the demand for which varies with the crop. There was a decrease in receipts from sales of Government estates, owing to decreased sales of proprietary rights to Lower Chenab colonists. Although the total number of coercive processes against lambardars showed an increase, there was practically no resort to the severer processes. Loans under the Acts amounted to £39,083, the greater part being loans for land improvement; loans for agricultural relief were not much in demand.

North-West Frontier Province.—In 1912–13 the fixed Land Revenue demand amounted to £123,574, of which 96·85 per cent. was collected. Advances to agriculturists decreased. The system of fluctuating assessment continues to work well in Dera Ismail Khan.

Central Provinces and Berar.—In the Central Provinces in 1912–13 the current land revenue demand was £642,727, an increase over 1911–12, due mainly to new settlements; in Berar it was £607,785. Save for remissions it was collected in full. Advances to agriculturists amounted to £41,585. Demand notices numbered 1,641, resulting in one imprisonment and eight sales. Miscellaneous land revenue increased by over £9,000, chiefly owing to increased receipts from manganese royalties.

Burma.—The land revenue demand rose to £1,930,022, being £51,695 more than in 1912–13, the rise being due to a second exceptionally prosperous year in succession, extension of cultivation, and revision of assessments. Remissions amounted to £13,676 only. Coercive processes showed a decrease under practically all heads. Besides land revenue proper, several minor heads are included under land revenue—the capitation tax levied in Lower Burma (amounting in 1913–14 to £380,232), *Thathameda* or household tax in Upper Burma (amounting to £257,949), fishery revenue (£223,276), and miscellaneous (£274,105). The number of persons assessed to capitation tax and of households assessed to *Thathameda* was 1,422,317 and 847,295 respectively. Of the miscellaneous revenue £223,412 was from royalties on petroleum, rubies, jade, and amber.

Madras.—In 1912–13 the total current demand, including cesses, water-rates, miscellaneous, &c., was £5,006,946, of which £332,356 was from permanently settled estates and the greater part of the rest from Ryotwari land. A generally favourable season and the introduction of enhanced assessments in certain districts caused an increase over 1911–12. Remissions granted on account of the season fell from £70,682 to £21,816. Current collections amounted to 98·8 per cent. of current demands. The number of coercive processes continues to decrease. In 1912–13 1,113,240 demand-notices were issued, and the number of sales was 1,973.

Bombay and Sind.—The aggregate demand in 1912–13 was £2,164,685 in the Presidency proper and £685,048 in Sind. Remissions showed a great decrease, chiefly in the Central and Southern Divisions, and collections amounted to an increased percentage of the demand. Advances to agriculturists showed a large decrease, chiefly owing to the restoration of normal conditions in Gujarat after the scarcity of 1911–12, and the heavy advances made in 1911–12 were recovered with ease, the joint bond system of making these advances thus proving successful.

Wards' and other Estates.

Wards' Estates.—Courts of Wards have been established in most of the larger provinces. Primarily intended for the protection of the Government revenue, they are also beneficial to the interests of the owners, and recent changes in the law have been largely made in the owners' interests. Before 1899, the Courts had power to assume the management of estates of minors, of persons physically or mentally incompetent to manage their own property, or of persons declared by the local Government, at their own request, to be disqualified for its management. Since that year various amending Acts have been passed in the several provinces conferring on Government further powers of putting estates under the control of the Courts without consent of the owners when the latter are in a special degree unqualified for their proper management. In other respects the general effect of the new Acts is to increase the powers of the Court of Wards with regard to the management of the properties under its charge and the discharge of encumbrances, and to prevent disqualified proprietors from creating new charges without the knowledge of the Court. The duty of the Courts is to manage the estates under their charge in the interests of both proprietors and tenants; to support the family of the proprietor, and to educate young wards; to pay off debts due by the estates; and to spend the surplus income on the improvement of the property in the best attainable way.

At the end of the last agricultural year for which complete figures were available there were 764 estates under management in the eight provinces that have Courts of Wards. The gross income of the estates was about £3,000,000.

Other Estates.—In Bengal there were 2,161 Government estates under direct management, with a current revenue demand of £265,659. In Bihar and Orissa there were 281 Government estates under direct management, paying an annual revenue of £113,804, at the close of 1913–14. In the United Provinces the number of Government estates at the end of 1913–14 was 606, most of them being very small properties in Jhansi and Oude. In Bombay proper at the end of 1912–13 there were 640 estates under the management of the Talukdari Settlement Officer, and 273 encumbered estates under a special manager in Sind.

CHAPTER V.

REVENUE FROM TAXATION AND OPIUM.

SALT.	CUSTOMS.
EXCISE.	INCOME TAX.
PROVINCIAL RATES.	REGISTRATION.
STAMPS.	OPIUM.

(For further details see Statistical Abstract for British India, Tables 43, 45 *to* 47, 50 *to* 58, *and* 61 *to* 66.)

Of the eight heads of revenue dealt with in this chapter, seven comprise the tax revenue of India, and furnish about 43 per cent. of the total net revenue of the Indian Government. To this the chief contribution is made by excise, the yield of which has increased in recent years, mainly on account of higher rates of duty and stricter supervision. Next come customs and stamps, both of which have benefited by the great progress in trade and industry. The salt revenue has diminished, owing to reductions, amounting to 60 per cent., in the rate of duty since March 1903. Receipts from income tax and registration are increasing.

Salt.

General.—From time immemorial a tax on salt has been a source of revenue in India. The salt revenue is now raised by a duty on all salt imported into, or manufactured in, India. The general rate of duty, which stood at Rs. $2\frac{1}{2}$ per maund (about $\frac{1}{2}d.$ a pound) from 1888 to 1903, was reduced to Rs. 2 in 1903, to Rs. $1\frac{1}{2}$ in 1905, and finally to Re. 1 in 1907. The rate in Burma, for imported salt, was at the latter rate throughout. This rate is therefore now universal, save for locally-produced salt in Burma (which, till 1911, paid 8 annas, and now pays 12 annas per maund), and certain other insignificant exceptions. Exemption from duty is granted under certain conditions for salt used in manufacturing processes. The reductions in duty from 1903 to 1907, and increased facilities for transport, have made salt cheaper than ever before, and greatly enhanced consumption, though not sufficiently so to make good the sacrifice of annual revenue. The table shows approximately the consumption of salt for 1902–3 (the last year of the unreduced duty) and for the five years ending 1913–14. It includes figures for Burma, which are partly estimated. It also shows the gross revenue.

Year.	Issues of Salt in 100,000 Maunds.	Gross Revenue in 000 £.
1902–3 -	374	6,184
1909–10 -	465	3,320
1910–11 -	461	3,176
1911–12 -	482	3,391
1912–13 -	480	3,334
1913–14 -	490	3,445

The revenue in 1913–14 increased to £3,445,305, of which nearly 30 per cent. was derived from imported salt. The charges amounted to £364,580, exclusive of £251,426 paid under treaties in the form of compensation, principally to Native chiefs who have assigned their salt sources to the Government of India.

Salt affairs in Upper India are controlled by the Northern Indian Salt Department, which is under the direct administration of the Government of India. The maritime local Governments have their own salt departments. As regards Bihar and Orissa, Bihar is under the Northern Indian Salt Department, but Orissa has its own.

The principal sources of salt supply are the sea coast, especially in Madras and Bombay, where salt is manufactured by the evaporation of sea water; the salt lakes and pits of Rajputana; the salt mines of the Punjab and North-West Frontier Province; and importations from abroad, which supply most of Bengal, Assam, and Burma. The duty is levied on salt at the place of manufacture, or at the port of importation, before it passes into consumption. Some of the salt sources belong to, or are worked under the direct control of, the various local governments; others are owned or leased by private individuals. The salt supply of India is not, therefore, a Government monopoly, and the importation of salt is unrestricted. Manufacture is

(Salt.)

not allowed where the circumstances are such as to render proper collection of the duty impracticable, as, for instance, on the coast of Bengal.

Northern India.—The salt sources under the control of the Northern India Salt Department comprise: (1) the Rajputana sources, including the Sambhar Lake and the brine springs at Pachbadra and Didwana in the Jodhpur State; and (2) the Punjab sources, including the Mayo, Warcha, and Kalabagh mines, the Kohat mines, the Mandi mines, and the brine springs at Sultanpur. The most important sources are the Sambhar Lake and the Mayo mine. The gross revenue of the Northern India Salt Department in 1913–14 was £809,511, or £31,360 more than in 1912–13, while the total charges amounted to £90,053. The total quantity issued by the Department for consumption was 10,333,719 maunds, as compared with 10,297,232 maunds in 1912–13. The following table shows the issues to, and prices in, provinces and states mainly supplied by the Department:—

Province or State.	Amount issued during 1913–14.	Average Retail Price per Maund.		Average Consumption per Head.
		1912–13.	1913–14.	
	Maunds.	Rs. A. P.	Rs. A. P.	Lbs.
North-West Frontier Province	586,637	1 8 7	1 8 0	8·55
Punjab	2,925,861	1 9 11	1 9 10	9·16
United Provinces	4,064,135	2 0 11	2 1 11	9·65
Bihar	249,112	2 2 1	2 2 7	11·85
Central Provinces and Berar	324,699	2 6 4	2 5 11	12·86
Rajputana	1,168,210	1 14 8	1 13 8	10·29
Central India	917,468	2 0 7	1 15 3	

The average retail prices were thus lower in 1913–14 in most of the provinces and States enumerated.

The Department issued 44,166 licences for the manufacture of saltpetre and other saline substances in 1913–14. The refineries produced 442,208 maunds of refined saltpetre.

The number of persons arrested for offences against the salt law was 267, of whom 123 were released. Of 128 persons convicted 16 were imprisoned.

Bengal.—The salt consumed in Bengal is imported from abroad or from other parts of India. In the littoral districts salt production is prohibited, owing to the difficulty of preventing illicit manufacture. The quantity of salt imported in 1913–14 was 15,608,456 maunds, as against 14,669,306 in 1912–13. The average wholesale price of salt, including duty, at the chief marts of Bengal was about Rs. 2.1.4. per maund, as compared with Rs. 2.1.9 in 1912–13. The average retail prices in the saliferous tracts (for which alone information on this point is given) varied, as in previous years, from 9 to 16 pies a seer. The net amount of salt consumed in the province rose to 7,227,250 maunds. The number of persons convicted of offences against the salt law was 3, as against 6 in 1912–13; there has been a considerable decrease in these offences of late due to wide distribution of shops for the sale of licit salt, systematic patrol, and the better condition of the people. The imports of salt from the United Kingdom continued to decline relatively to the total imports of the province.

Orissa.—There is no direct import of foreign salt into Orissa; the total quantity imported from other parts of India (chiefly Madras) was 1,345,163 maunds, as against 1,419,948 in 1912–13, when consumption was abnormal owing to the influx of people during the Car festival. The average wholesale price for the entire province of Bihar and Orissa was Rs. 2.2.4 per maund. The number of persons convicted for offences was 16.

Madras.—There are two systems of salt manufacture in Madras, under one of which the salt is manufactured by Government, whilst under the other the Government levies an excise duty and allows the manufacturers to make such arrangements as they please for the disposal of the salt. Of the 65 factories worked during 1913–14, 45 were under private and 20 under Government management. The quantity manufactured was 9,481,071 maunds, against an annual average outturn of 11,478,083 maunds for the previous five years, the decrease being due to heavy rains and to the

non-working of several factories owing to the existence of large stocks. The duty-paid salt imported by sea from Bombay decreased from 1,375,541 maunds to 1,284,770. Issues for home consumption fell from 12,047,588 maunds to 11,860,895; but salt revenue rose owing to larger realisation on account of credit sales in 1912–13. The incidence of taxation amounted to 3 annas 8 pies per head of population as against 3 annas 9 pies in 1912–13.

Bombay.—The salt supply of Bombay comes from the Pritchard salt brine works, owned by the Government (Baragra salt), from sea-salt works on the coast, and from abroad, chiefly from Goa. The sea-salt works excepting one, at Dharasna, worked by the Government are owned by, or leased to, private individuals. The bulk of the Baragra salt is exported to the United Provinces, the Central Provinces, and Central India; while the Madras Presidency and its States, Hyderabad, Mysore, Calcutta, and the Central Provinces, take large amounts of sea salt, The conditions of the year were favourable. The marginal table shows the issues of salt from each source in 1913–14. The consumption per head was 13·3 lbs., as against 12·7 lbs. in 1913–14. The average price has remained pretty constant throughout the Presidency. The number of offences fell from 159 to 143. They were mostly of a very trivial kind. Thirty-one fish-curing yards were open at the end of the year. For a second year in succession the fishing season was poor, and the fish brought to be cured (217,558 maunds) was about the same as in 1912–13. The issue of denaturalised salt duty free has been sanctioned for manuring purposes.

—	Total Issues.	For Local Consumption.
	Maunds.	Maunds.
Baragra salt -	2,933,132	605,513
Sea salt -	9,275,869	2,726,426
Imported salt	355,008	246,382
Total -	12,564,009	3,578,321

Sind.—The Sind salt supply is derived chiefly from the sea-salt works at Maurypur, and in smaller quantities from salt deposits at Saran and Dilyar on the edge of the desert, and from importation. The quantity of salt sold fell in 1913–14 from 430,921 maunds to 420,201 maunds. The average amount consumed per head of the population fell from 10·52 lbs. to 10·43 lbs. As in Bombay, the fish-curing season was a poor one, and the quantity of salt issued for this purpose decreased.

Burma.—One rupee per maund is levied on salt imported into Burma. All salt locally manufactured formerly paid an excise duty levied by a composition rate on vessels used for boiling brine; but a system of levying duty on actual output has now been introduced into all districts where any large quantity is produced, and has proved financially successful. As the result of an inquiry into the salt industry, it was decided to suppress the manufacture where it was of slight proportions, to concentrate it wherever it should be continued, to combine the Salt with the Excise Department, and to enhance the excise duty by 25 per cent. The latter two changes were duly effected, and the local industry proved itself so well able to support the enhanced duty that the duty was raised a further 20 per cent. with effect from 1st January 1914. The duty on actual output, where it is in force, has thus been raised to 12 annas per maund. The other changes are being introduced gradually. The total estimated consumption of the province amounted to 2,506,243 maunds in 1913, as against 2,361,816 maunds in 1912. The estimated local output was 819,636 maunds, as against 839,653 maunds in 1912; imports rose from 1,740,166 maunds to 1,808,036 maunds. The average retail price was Rs. 3.0.8 per maund.

Excise.

Excise revenue is derived from the manufacture and sale of intoxicating liquors, opium, and other drugs—principally hemp.

The declared policy of Government with regard to alcohol is to minimise temptation for those who do not drink, and to discourage excess among those who do. With this aim the tax upon liquor is raised to as high a rate as possible, care being taken that the retail price does not reach so high a point as to stimulate illicit practices or drive the consumer to substitute deleterious drugs for alcohol or a more for a less harmful form of liquor.

(Excise.)

The whole question of excise administration as regards alcohol was reviewed by a committee in 1905,* whose recommendations included advances in taxation in many cases, the further concentration of distillation, the extended adoption of the contract distillery system, and improvements in the preventive and other establishments employed. Action to effect these improvements has been taken in all provinces and, when necessary, legislation has been carried out to enforce the Committee's recommendations. The subject has recently been reviewed at length by the Government of India and Local Governments, and papers on the subject were published in 1914.*

The country liquor manufactured in India is mostly distilled from a base either of molasses or Mahua flowers. The Mahua tree (*Bassia Malabarica*) is common in the Central Provinces and the plains of Central India.

Under the contract distillery system above referred to the monopoly of supply of a given area is given out on contract, the contractor issuing his liquor at the rate of still-head duty in force, and supplying vendors at a fixed rate determined by tender over and above this duty, while the right of retail vend is sold, usually by auction, up to a sanctioned number of shops. The distillation is carried out by the contractor's staff in Government distillery buildings under the supervision of a Government expert, and the issue of spirit is effected under strict Government control. In the Punjab the contractors of the licensed distilleries also undertake the retail vend of the spirit through their agencies. In a few districts, mostly inaccessible, the old "out-still" system prevails, distillation under old-fashioned methods being carried out locally under licence. Otherwise the whole of India is gradually being brought under the contract system. By this system the dangers of unrestricted competition for the supply of liquor, and the attendant difficulties of proper supervision are avoided, while the largest possible proportion of the monopoly profits, both on wholesale and retail supply, are secured to Government. The danger of high vend-fees and low still-head duties is that this gives a wide margin of profit per gallon for the retailer and leads him to push sales. On the other hand a high still-head duty is only practicable when there is adequate security against illicit distillation. Thus as the preventive system becomes more efficient, the weight of taxation is transferred from vend-fees to still-head duty.

The number of retail spirit shops is being steadily reduced throughout India. Objections are invited from the public before any new retail shop is licensed, and the location of all the shops comes periodically under review by advisory committees in all the towns of any size.

Fermented liquors are taxed mainly by means of licenses for manufacture and retail trade. In Madras and Bombay a fixed tax per tree is levied on trees tapped for toddy. Spirits and beer manufactured in India on European lines are taxed at the same rate as the customs duties on similar liquors imported from abroad.

Opium, which is a common form of household drug, is usually taken in the form of pills or dissolved in water. Opium smoking is now far less common than it was; it is subject to legal restrictions which are being made more stringent according to the policy announced by the Government of India in August 1912 in pursuance of a resolution on the subject passed by the Shanghai International Opium Commission of 1909. The Excise Revenue on opium is chiefly derived from duty and vend-fees. Hemp cultivation is restricted and controlled, and here again a duty and vend-fees are levied. Charas—the most concentrated and harmful form of hemp drug—is imported from Yarkand. It is now prohibited in some districts, and elsewhere is subject to a high duty.

The growth of the Excise Revenue in recent years is due largely to higher rates of duty and stricter excise control, and does not indicate a corresponding increase of consumption, although a moderate increase has occurred through the expansion of population and the greater prosperity of the country as a whole.

The habit of cocaine-taking has of recent years become common among certain classes in the larger towns of Burma, Lower and Eastern Bengal, Bombay, and the United Provinces. Legislation has been enacted rendering any person found in possession of the smallest quantity without a licence liable to punishment, and large

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* For the Report of the Committee, and for the orders passed by the Government of India thereon, *see* Parliamentary Papers Cd. 3327 and 3816, and House of Commons Papers 142 and 209 of 1907. For the later papers, *see* Cd. 7524 and 7604 of 1914.

quantities of smuggled cocaine have been seized by the officers of the Excise and Customs Department, a special staff in some towns having been appointed for watching this illicit trade; but owing to the high prices obtained for the drug, and the ease with which it can be passed into the country, a large quantity of cocaine has been successfully disposed of by smugglers. It is hoped that the cessation of trade with Germany, the country from which most of the smuggled cocaine has been exported, will effect a marked and permanent reduction in the consumption of this noxious intoxicant. Various unofficial bodies are doing their best in towns and in rural districts to discourage indulgence in intoxicants. In Bombay arrangements are made to provide counter-attractions for mill-hands and other workmen on festival days when drinking has in past years been indulged in: this is a far more helpful method of combating intemperance than the mere delivery of lectures and issue of pamphlets calling attention to the evils of alcohol.

The following table shows the Excise Revenue for 1912–13 and 1913–14 under the different heads, as given in the Finance and Revenue Accounts:—

Year.	Licence and Distillery Fees and Duties for the Sale of Drugs and Liquors.					Other Duties, &c. on Indian Consumption of		Fines, Confiscations, Miscellaneous.	Total Revenue.	Charges.	Net Revenue.
	Foreign Liquors, &c.	Country Spirits.	Toddy and Pachwai.	Opium and its Preparations.	Other Drugs.	Opium.	Ganja, &c.				
	£	£	£	£	£	£	£	£	£	£	£
1912–13 -	312,154	4,534,745	1,396,188	330,368	505,531	868,296	303,173	27,464	8,277,919	428,571	7,849,348
1913–14 -	335,063	4,820,213	1,507,994	377,086	546,630	914,401	360,895	32,018	8,894,300	437,529	8,456,771

	£
1893–4 -	3,971,000
1903–4 -	5,291,000
1910–11 -	7,423,000
1911–12 -	8,015,000
1912–13 -	8,689,000
1913–14 -	9,339,000

A sum of £882,770 was yielded by customs duties on exciseable liquors imported into India during the year. The revenue from liquors and drugs (*i.e.*, total excise revenue less charges, *plus* customs duties on exciseable liquors) for 1893–4, 1903–4, and the last four years is given in the margin. In 1913–14 it amounted to about 9*d.* per head of the population affected.

The number of retail shops and the excise receipts, as compared with the population, are shown in the following table, province by province:—

PROVINCE.	Population of Excise Area.	Number of Persons per Retail Shop licensed in 1912–13 for the Sale of				Net Excise Receipts per 10,000 of Population in Rupees.
		Country Spirit.	Country Fermented Liquor.	Opium and its Preparations.	Narcotic or Intoxicating Drugs, other than Opium.	
Bengal - - - - -	45,329,247	35,413	13,458	51,161	21,908	3,253
Bihar and Orissa - - -	34,490,084	10,824	4,560	61,589	20,640	3,089
Assam - - - - -	6,622,431	34,854	213,627	16,681	25,768	7,767
United Provinces - - -	47,182,044	10,079	15,844	43,247	13,648	2,691
Punjab - - - - -	19,548,126	25,520	88,851	21,841	36,952	3,430
North-West Frontier Province -	2,251,292	68,221	—	32,161	30,840	1,479
Burma - - - - -	10,534,808	65,843	9,764	84,958	—	6,800
Central Provinces and Berar -	13,916,308	3,806	26,609	13,166	12,459	7,983
Madras - - - - -	41,430,193	4,893	2,832	54,585	77,295	8,374
Bombay - - - - -	16,113,051	7,887	822	20,631	28,103	11,610
Sind - - - - - -	3,513,435	14,459	878,358	15,685	9,295	6,485

The marginal tables attached to the following accounts of excise administration in the different provinces give the total excise revenue for 1912–13 and 1913–14 according to the departmental returns. In some cases the issues of drugs to Native States are included:—

(Excise.)

Bengal.—Enhanced rates of duty on country spirit came into force from April 1913; a further enhancement for most districts has been sanctioned to take effect from April 1914. The rate of duty on charas has been raised from Rs. 12 to Rs. 30 per ser. Licensing boards have been constituted for all municipal areas in the Calcutta district, and advisory boards have been appointed for all other municipal and rural areas. A number of shops have been closed on the advice of these committees, and others have been closed by departmental action. A marked reduction has been made in the number of temporary licences granted on occasions of local fairs.

Gross Receipts from	1912–13.	1913–14.
	£	£
Country spirits - -	427,346	465,111
Foreign liquors and rum -	38,158	40,840
Fermented local liquors, toddy, and rice-beer.	86,384	89,496
Opium - - - -	158,421	182,871
Hemp drugs - - -	204,672	244,953
Miscellaneous - - -	2,296	2,597
Total - -	917,277	1,025,868

The settlements for licence fees for the sale of opium and ganja showed a decided increase, due, in the case of opium, to the restriction of issues, which enabled shopkeepers to raise their retail prices without fear of competition, and in the case of ganja to the fixation of upset prices at the auctions.

The total consumption of spirits from central distilleries showed a decrease as compared with the issues in 1912–13, in spite of the fact that the Chittagong district was supplied for the first year from a central distillery in 1913. The decrease in consumption was not spread over the whole province. It is attributable to the high prices charged by the retail sellers in consequence of the rise in duty and, in the neighbourhood of Calcutta, to an increased consumption of foreign liquor.

The withdrawal of the privilege of brewing pachwai for domestic purposes free of licence from the aboriginal settlers in the 24 Parganas was naturally unpopular with those affected, and involved a number of prosecutions for illegal manufacture. The increase in the duty on ganja and enhancement in the licence fees for its sale led to a decrease in the consumption in those districts in which increased consumption had been noticed in previous years.

The number of persons arrested in Calcutta for offences connected with cocaine was large, and opium smuggling is still not uncommon.

The Excise Intelligence Bureau co-operated with the bureaux in other provinces in the work of disseminating information regarding all suspected offenders against the Excise Law.

Bihar and Orissa.—Those portions of the Champaran and Muzaffapur districts which had hitherto been served from out-stills were included in the area supplied by central distilleries. The out-still system is still in force in three whole districts and parts of four others.

Gross Receipts from	1912–13.	1913–14.
	£	£
Country spirits - -	360,449	374,519
Foreign liquors and rum -	2,165	2,375
Fermented local liquors, toddy, and rice-beer.	93,130	99,302
Opium - - -	81,030	100,439
Hemp drugs - - -	153,697	172,172
Miscellaneous - - -	2,901	1,852
Total - -	693,372	750,659

The issues from central distilleries showed a slight increase in comparison with the issues of the previous year, but this was not proportionate to the enlargement of the area to which supplies were issued. The decrease in consumption is due to the enhancement of retail prices following on the raising of the duty and to local scarcity in parts of Bihar. In some parts of Bihar tari is taking the place of country spirit during the hot-weather season. The issue of 50° U.P. spirit was discontinued from the Ranchi Distillery with the object of preventing the acquisition by aboriginal drinkers of a taste for strong alcohol. The duty on ganja was raised, and the consumption was slightly reduced as a result. The duty on opium was also raised in certain districts, but the consumption increased by 34 maunds. This increase chiefly occurred in the littoral districts of Orissa, from which smuggling is suspected. A further restriction on the issues in these and the adjoining districts is contemplated.

The illicit use of cocaine is steadily on the increase. Special measures were taken to deal with the smuggling of the drug, but the supply continues in spite of frequent convictions of smugglers.

(Excise.)

Assam.—The hill districts in Assam are supplied from out-stills. In the area served by central distilleries the consumption rose by 5·8 per cent.; the increase is due to the prosperity of the year and the influx of foreign labour. The consumption both of opium and ganja was also larger than in the preceding year. The number of opium shops is being reduced and the introduction of minima retail prices is under contemplation. A number of cases of opium-smuggling to Burma through Chittagong have been detected; precautionary steps are being taken to check any development of this trade. Municipal boards have been utilised as advisory bodies in connection with the location of excise-shops, and it is proposed to extend the system to the local boards in rural districts.

Gross Receipts from	1912–13.	1913–14.
	£	£
Country spirits - - -	93,824	102,111
Opium - - - - -	182,554	194,498
Other drugs - - - -	45,836	52,653
Other liquors and miscellaneous	1,255	1,357
Total - - -	323,469	350,619

United Provinces.—The series of good harvests in preceding years led to a marked increase in the receipts from licence fees for the sale of county spirits. The bidders' expectations were not, however, realised, for the failure of the Kharif harvest led to a decided fall in the consumption during the latter part of the year. Stillhead duty was raised during the year, and it is proposed to raise it further. The demand for tari is increasing in the hot season in some districts, and tari is to this extent taking the place of country spirits. The consumption of ganja again increased. It is due to the breaking up of monopolies amongst the retail traders and consequent cheapening of retail prices. Ganja may be taking the place of charas to some extent and is substituted for county spirits in times of scarcity. Enhancement of the duty is under consideration.

Gross Receipts from	1912–13.	1913–14.
	£	£
Imported liquors, &c. -	17,606	20,820
Fermented local liquors -	22,102	22,619
Country spirits - -	560,426	591,877
Opium - - - -	79,946	83,299
Other drugs - - -	160,406	168,304
Miscellaneous - - -	649	681
Total - -	841,135	887,600

Useful assistance was rendered in Benares by members of the local temperance society in the suppression of illegal cocaine traffic.

Punjab.—In February 1914 the new Punjab Excise Act came into force. The Act enhances the penalties in the case of several offences against Excise laws and in other ways strengthens the hands of the authorities. The increased consumption of country spirits is due to an increase in the general prosperity. The number of licences were reduced during the year. There was a marked increase in the consumption of beer, both foreign and India-brewed; the consumers are mostly men of the middle class. The issues of charas fell during the year, but those of bhang increased. Cocaine-taking is prevalent in the towns of Lahore and Amritsar, and in the Amballa district. Illicit distillation is still common in the grain-growing districts of the Central Punjab, but, owing to the activities of the excise staff, is on the decrease.

Gross Receipts from	1912–13.	1913–14.
	£	£
Imported liquors, &c. -	28,376	30,533
Fermented local liquors	198	257
Country spirits - -	271,723	293,842
Opium - - -	78,989	85,729
Other drugs, &c. - -	46,654	50,066
Miscellaneous - -	84	151
Total - -	426,024	460,578

(Excise.)

North-West Frontier Province.—The issue rate of opium and the duty on charas were raised during the year. Afghan opium has now been entirely replaced by Ghazipur opium, except in the Peshawar district; its entire prohibition is under consideration. A small Excise Intelligence Bureau has been established and has done good work in checking the smuggling of opium from Afghanistan. There was a decrease in the amount of charas imported.

Gross Receipts from	1912–13.	1913–14.
Imported liquors -	2,585	2,466
Country spirits - -	6,106	6,744*
Opium - - -	7,057	8,929
Other drugs - -	8,475	5,196
Miscellaneous - -	3	6
Total - -	24,226	23,341

* Besides £7,890 duty on spirits imported from the Punjab and United Provinces and credited to these Provinces.

Burma.—The contract distillery system has been extended and now subsists in 15 districts; illicit distillation is decreasing as the system extends. The consumption of opium showed a marked decline during the year, and it is claimed that a generation of Burmans is growing up for whom the opium habit has no attraction. Cocaine is smuggled through Rangoon and taken in large quantities in the Pegu and Irrawaddy divisions. Ganja is prohibited in Burma, but both this drug and opium are smuggled in, despite the efforts made to prevent this. An increased demand for foreign and rice-beers is evident. The regulation of the manufacture of rice-beer has resulted in a great improvement in the quality of the brew, adulteration and fortification having practically ceased.

Gross Receipts from	1912–13.	1913–14.
	£	£
Imported liquors, &c. -	77,650	74,251
Fermented liquors -	180,368	194,470
Country spirits - -	27,568	40,687
Opium - - -	248,748	236,151
Miscellaneons - -	7,099	10,595
Total - -	541,433	556,154

Central Provinces and Berar.—The contract distilling system was extended in two more districts and now covers 80 per cent. of the area of these provinces. The excise revenue shows the large increase of ten lakhs due principally to a rise in licence fees, especially those for the sale of country spirit. The rise is attributed to the general prosperity resulting from good seasons and to the rise of the retail price of country spirit. The consumption of country spirits declined slightly, more particularly in Berar, owing to the reduction of licences and the steady enhancement of retail prices in accordance with the rise in the duty. It may be found necessary to enforce maximum prices to meet this tendency. The revenue realised from tari increased slightly: this was mainly due to the elimination of persons interested in the sale of country spirits from the auctions of tari licences. Minimum prices had to be fixed in one or two places to prevent rate-cutting by rival opium-sellers in their efforts to attract custom. Some efforts are being made by individuals and societies to encourage temperance. Some castes now distribute sweetmeats at social gatherings at which liquor was formerly distributed, but this is probably done to effect economy owing to the increased cost of liquor rather than to promote abstinence. Fifty-eight country-spirit shops were closed during the year: it is doubtful whether any further reduction can be effected without danger of a rise in the amount of illicit distillation. Ganja consumption increased; some of the poorer classes appear to be abandoning country spirits for ganja on account of the rise in the retail price of the former.

Gross Receipts from	1912–13.	1913–14.
	£	£
Country spirits and tari -	526,209	576,740
Opium - - - -	128,569	139,959
Hemp drugs - - -	49,309	53,947
Miscellaneous, including foreign liquors - -	2,913	4,318
Total - -	707,000	774,964

(Excise.)

Madras.—The contract distillery system was extended to British Cochin. The duty on country spirit was slightly increased during the year. The number of shops licensed for the sale of country spirit was reduced to the large extent of 416. It is doubtful whether this reduction had any effect on the consumption. It is true that the year's consumption only slightly exceeded that of the previous year, but heavy rain and floods and consequent bad harvests and plague, together with increased duties, are chiefly responsible for the reduction of the consumption in the districts affected. The amount of foreign liquor imported into the Presidency increased by 13 per cent. In the Tanjore district country-brewed beer is gaining in favour among moderate drinkers and displacing country spirit to a slight extent. The revenue realised from tari considerably exceeded that of the previous year. It is attributed to keen competition among the bidders for licences. Although the revenue from opium increased by nearly two and a half lakhs, the consumption declined and several shops were closed. The increase is due to enhancement of issue prices and greater competition for licences. The consumption of ganja rose during the year: this was to some extent due to the smuggling of ganja into Mysore, and the question is receiving attention. The Excise Laboratory did good work during the year and the information disseminated from the Excise Intelligence Bureau has proved of great value to local officers in dealing with organised smuggling.

Gross Receipts from	1912–13.	1913–14.
	£	£
Imported liquors, &c.	37,080	46,002
Country spirits	963,812	1,067,561
Fermented liquors	1,030,251	1,121,540
Opium	114,819	130,856
Other drugs	48,277	57,532
Miscellaneous	7,673	10,581
Total	2,201,912	2,434,072

Bombay.—The marginal table includes figures for Sind. The main feature of the year was an increase in Excise Revenue, accompanied by a falling off in consumption. The contract supply system now prevails throughout all the province except one district and parts of a few others. For selling licences the fixed fee system has been substituted for auction as the general rule. This system is stated to work well, so far as regards administration, though financially it means a loss of revenue. The rival merits of the two systems are still under consideration. Duty on spirits and maximum selling prices were raised in many districts. There was a large increase in the consumption of toddy, which, in some districts, seems to be taking the place of country spirits.

Gross Receipts from	1912–13.	1913–14.
	£	£
Imported liquors	19,123	19,693
Country spirits	1,065,268	1,102,332
Toddy	133,077	137,549
Opium	105,542	124,683
Other drugs	83,577	93,470
Miscellaneous	5,661	2,193
Total	1,412,248	1,479,920

The consumption of ganja has slightly increased, but that of charas has decreased owing to the prohibition of its sale in many districts during the year. Important seizures of cocaine were made in the port of Bombay; the traffic in this drug is practically confined to one or two big towns. There was a considerable decrease in the sales of opium.

Provincial Rates.

Since 1904–5 many cesses levied under the head of Provincial Rates have been abolished. In 1907–8 a further reform was adopted by the exclusion from the Imperial accounts of the transactions of District Boards and of certain other local funds, which are raised locally, mainly for local purposes, and chiefly managed by local bodies. The revenue from Provincial Rates amounted in 1913–14 to £180,210, as against £552,149 in 1912–13. The decrease is due to the surrender to district boards of the Public Works cess in Bengal and Bihar and Orissa. The only other considerable item is the appropriation by the United Provinces from local rates for the payment of rural police in the Agra Province. This also has been discontinued with effect from the beginning of 1914–15.

(Stamps.)

Stamps.

The stamp revenue is derived from two great classes of stamps. Judicial or court fee stamps are provided for by the Court Fees Act (VII. of 1870), which imposes fees on plaints, petitions, and other documents, with specified exceptions, filed before civil, criminal, or revenue courts; non-judicial stamps by the Stamp Act (II. of 1899), which imposes duties on commercial transactions recorded in writing, such as conveyances, bonds, cheques, bills of exchange, receipts, and the like. The revenue from the former class increases with the growth of litigation, and that from the latter class with the development of trade and industry. In 1913–14 the revenue grew under both heads. The marginal table gives the gross stamp receipts for 1912–13 and 1913–14. Over one-fourth of the revenue is derived from Bengal.

Gross Receipts from	1912–13.	1913–14.
	£	£
Sale of court fee stamps -	3,373,681	3,518,012
Sale of commercial and other stamps.	1,620,433	1,707,946
Fines and miscellaneous -	75,001	92,335
Total -	5,069,115	5,318,293

Customs.

Special import duties are levied on malt liquors, wines, spirits, arms and ammunition, salt and salted fish, opium, tobacco, and silver. The duties levied on alcoholic liquors were raised by the Indian Tariff (Amendment) Act of 4th March 1910 (No. VIII.). They are now: ale, beer, &c., 3 annas per gallon; liqueurs, perfumed spirits, &c., Rs. 13 per gallon; spirit used in drugs, medicines, or chemicals, Rs. 7:13:0 per gallon; other spirit, Rs. 9 : 6 : 0; sparkling wines, Rs. 3 : 12 : 0; and other wines, Re. 1 : 8 : 0 per gallon. Tobacco is dutiable at various rates, which were raised in 1910 but reduced again in 1911, the enhanced duties not having proved as productive as was expected. Salt is dutiable at Re. 1 per maund, and silver at 4*d.* per ounce. Petroleum pays 1½ annas per gallon, and iron and steel generally 1 per cent. *ad valorem*. General import duties, which had been abolished in 1882, and were re-imposed in 1894, are levied at the rate of 5 per cent. *ad valorem*. For as many articles as practicable tariff valuations are fixed, and these are revised from time to time, a general revision being made in December of each year. The chief articles on the free list are railway materials, machinery which is worked by power other than manual or animal labour, grain and pulse, living animals, coal, jute, raw cotton, raw wool, books, gold and unset precious stones. On the revival of general duties in 1894 cotton goods were at first exempted, but in December 1894 a 5 per cent. *ad valorem* duty was imposed on imported cotton goods and yarns, while an excise duty of equal amount was imposed on all yarns of counts above 20 spun at power mills in British India. In February 1896 the cotton duties were revised; all cotton yarns and thread, whether imported or manufactured in India, were freed from duty, while a uniform duty of 3½ per cent. *ad valorem* was imposed on all woven cotton goods imported from abroad or manufactured in India at power mills, the products of handlooms being exempted. A duty is levied on exported rice and rice-flour at the rate of 3 annas per maund of 82⅔ lbs. of unhusked rice (about 4*d.* per cwt.). Jute exports from Calcutta and Chittagong bear a small duty for the benefit of the town, and there is a trifling export duty on tea which goes to a committee representing the tea-trade; but the proceeds of these duties do not enter the Government accounts. The last of the countervailing duties imposed from 1899 onwards on sugar from certain countries were withdrawn in 1912.

(Customs.)

The appended table shows the amount of the customs receipts in 1894–5 and 1895–6, when the changes above-mentioned took effect, and also those for the four most recent years :—

——	1894–5.	1895–6.	1910–11.	1911–12.	1912–13.	1913–14.
Sea Customs, import duty :	£	£	£	£	£	£
Arms, ammunition, &c.	10,126	11,403	10,326	9,638	14,276	13,646
Liquors	406,355	440,669	798,909	825,067	831,764	882,770
Petroleum	213,118	270,782	402,222	496,729	463,526	468,125
Cotton manufactures	256,631	776,483	935,290	1,029,886	1,271,026	1,407,608
Silver bullion and coin	230,557	231,859	1,077,882	644,401	715,165	657,227
Other metals	135,078	168,641	349,266	337,952	350,440	482,962
Sugar	630,450	686,725	411,233	306,259	476,576	607,755
Other articles			1,324,593	1,373,307	1,521,040	1,614,609
Export duty on rice	594,017	609,581	851,076	885,865	962,720	839,131
Miscellaneous	6,694	1,770	22,741	26,890	33,551	35,960
TOTAL Sea Customs	2,483,026	3,197,913	6,183,538	5,935,994	6,640,084	7,009,793
Land Customs	15,884	13,397	27,432	33,871	36,933	37,270
Excise duty on cotton manufactures	6,897	40,632	281,772	320,300	371,077	357,512
Miscellaneous	10,773	18,672	18,485	19,107	18,200	20,643
TOTAL NET CUSTOMS REVENUE	2,516,580	3,270,614	6,511,227	6,309,272	7,066,294	7,425,218

The receipts from import duties in 1913–14 showed an increase, owing to the growth of trade.

Income Tax.

The Income Tax Act (II. of 1886), applicable to the whole of India, took the place of local Acts under which various licences were required for the exercise of trades or industries. Its principal provisions are that all incomes from salaries and pensions or from interest on securities, if amounting to Rs. 2,000 per annum, shall pay 5 pies in the rupee (equal to $6\frac{1}{4}d.$ in the £); that incomes less than Rs. 2,000 shall pay 4 pies ($5d.$ in the £); that companies shall pay 5 pies in the rupee on their net profits; and that incomes under Rs. 2,000 derived from other sources shall pay according to a graded scale from Rs. 20 on an income of Rs. 1,000 to Rs. 42 on Rs. 1,999, and 5 pies in the rupee on incomes of Rs. 2,000 and upwards. All incomes of less than Rs. 1,000 (£66⅔) a year were exempted by an amending Act (XI. of 1903), which substituted that taxable minimum for the former limit of Rs. 500. The tax is not levied on incomes from land or agriculture. Military salaries of less than Rs. 500 a month (£400 a year) are exempt.

The gross revenue from income tax in 1913–14 was £1,950,250, as compared with £1,742,397 in 1912–13. The proportion or revenue derived from the different sources (shown in the margin) varies but little. The number of persons assessed to income tax is only a small fraction of the population, the total in 1911–12 being 288,988. A large proportion of the revenue is collected in Calcutta and Bombay. Income tax receipts have increased with the increase in profits and salaries resulting from commercial and industrial activity, as well as through improved administration.

	1913–14.
	£
Ordinary collections	1,555,075
Government salaries and pensions	318,399
Interest on Government securities	59,776
Other items	17,000
	£1,950,250

Registration.

General.—Offices exist in every district for the registration of documents, and for keeping copies thereof. *Ad valorem* fees are charged for registration, and a small fixed fee for searching the records. For registration purposes, documents are divided into (*a*) those the registration of which is compulsory, or necessary to the validity of the deed, and (*b*) those which are registrable or not at the option of the holder, though

(Registration.)

liable, if unregistered, to be superseded by registered documents, subject to the equitable doctrine of notice. In the former class are instruments of gift of immovable property, or other non-testamentary documents which affect rights in such property of a value of Rs. 100 and upwards, and, with certain exceptions, annual or longer leases. Optionally registrable documents include those relating to immovable property not comprised in the above-mentioned classes, deeds affecting movable property, wills, and other documents. As regards transfers of immovable property, however, the situation is affected, except in the Punjab and Upper Burma, by the Transfer of Property Act (IV. of 1882), as amended by Acts of 1885 and 1904. Under the provisions of the Act of 1904 the registration of mortgages of immovable property of a lower value than Rs. 100, previously optional, was made compulsory. Practically all deeds transferring immovable property have now, therefore, to be registered. Mortgages form the largest class of instruments registered. Documents relating to the sale, mortgage or lease of immovable property, compulsorily registrable, comprise the great majority of all registrations. The number of optional registrations has steadily declined, partly owing to the operation of the amending Act of 1904.

The gross registration receipts in 1913–14 were £518,962, as compared with £482,022 in 1912–13, and the cost of the registration offices was £255,453. During the three years ending 1913–14 the receipts, which had received a check in the two preceding years, have rapidly increased. New registration offices have been established, and there has been a steady improvement in the efficiency of the local sub-registrars. Fluctuations in the volume of registration, especially in the number of deeds evidencing mortgages and sales, may be due, on the one hand, to bad harvests, high prices, and declining credit, or, on the other, to increase in the value of lands, settlement operations, the development of new land, the expansion of trade, and improvement of credit. There is every reason to believe that the latter causes are responsible for the steadily increasing number of documents brought for registration in recent years. In 1913 the number of compulsory registration transactions showed an increase in every province except Madras and Bombay, in which provinces there was a slight decrease. The increase is attributed to the progressive rise in the value of land, both agricultural and building, in Bengal, the United Provinces, and the Punjab, to extension of canal irrigation in the Punjab and the North-West Frontier Province, to wider knowledge of the law respecting registration and to extension of facilities for registration in Burma, to the high rate of food prices in Assam, and to the extension of railways and improvement of credit due to good seasons in the Central Provinces.

Opium.

General.—The opium revenue has hitherto been raised partly by the levy of duty on opium exported from Native States to China, and partly by a monopoly of the production of the drug in an area now confined to certain districts in the United Provinces, where opium is grown for internal use in India and for export to those foreign countries or colonies where its use is permitted. Since December 1913, however, the export of opium from Native States to China has been discontinued, and the revenue from this source has ceased. The area sanctioned for opium cultivation in the United Provinces in 1913–14 was about 167,000 acres, as against about 203,000 in 1912–13. The cultivator of opium (known as Bengal opium) in these monopoly districts must hold a licence, and is granted advances to enable him to prepare the land for the crop. He is required to deliver the whole of his outturn of crude opium at a fixed price to Government agents, by whom it is despatched to the Government factory at Ghazipur. The supply of prepared opium required for consumption in India, "excise opium," is made over to the Excise Department, and Rs. 8½ per seer is credited to opium revenue for the amount thus consumed. The chests of "provision" opium, for export, are sold by auction at monthly sales in Calcutta. The price obtained at the Calcutta sales, less the cost of production, is the revenue from Bengal "provision" opium. The export of Bengal opium to China ceased at the beginning of 1913. Opium (known as Malwa opium) is grown in Baroda and in some of the Native States of Rajputana and Central India. The Government of India interfere in no way with its production or local consumption; but Malwa opium may not pass into British territory, whether for export by sea or for consumption, without a pass, which is no longer granted.

(Opium.)

Towards the end of 1906 edicts were issued by the Chinese Government ordering that within 10 years the growth and the consumption of opium in China should be suppressed. In 1907 an agreement was made with China for an annual reduction of the total amount of opium exported by India; in 1911 it was further agreed that, of the annual exports thus limited, only a certain quantity, to be reduced annually, should be certificated for export to China, and provision was made for an earlier cessation of the export to China in the event of the native Chinese production being suppressed before the expiration of the period of 10 years. In 1913 the sale of opium thus certificated was suspended, and it has since been decided that the trade with China shall not be resumed.

The opium revenue and expenditure during recent years have been as follows:—

	1907-8.	1908-9.	1909-10.	1910-11.	1911-12.	1912-13.	1913-14.
Opium Receipts:*	£	£	£	£	£	£	£
Sales of Bengal opium	4,401,988	4,234,444	4,546,147	7,245,574	4,990,982	3,320,382	1,279,478
Duty on Malwa opium	620,480	1,398,780	724,140	8,720	693,274	1,473,310	27,500
Excise opium, and miscellaneous	222,518	251,564	264,396	267,668	277,022	330,900	317,900
Total	5,244,986	5,884,788	5,534,683	7,521,962	5,961,278	5,124,592	1,624,878
Opium expenditure	1,669,441	1,236,088	1,110,155	1,246,657	729,452	599,729	1,012,440
Net opium Revenue £	3,575,545	4,648,700	4,424,528	6,275,305	5,231,826	4,524,863	612,438

* Exclusive of the licence fees and duty on opium consumed in India, amounting in 1913–14 to £1,291,487 included under Excise.

Bengal.—The area cultivated with the poppy in the Ganges Valley in recent years is shown in the margin, together with statistics of opium produced and sold for export. The area sown in 1912–13 was considerably less than the sanctioned area for the year, owing to the disheartening effects of two bad seasons in succession. The price of crude opium was raised by 25 per cent. in July 1913. The average outturn per acre slightly decreased. 11,253 chests of Malwa opium were purchased by the Department, and Excise opium is being made out of a blend of Malwa and Benares opium.

Year.	Acres.	No. of Chests produced for Export.	No. of Chests sold for Export.	Average Price in Rs.
1910-11	380,700	15,000	37,560	2,892
1911–12	217,700	14,000	26,330	2,790
1912–13	194,500	14,000	17,890	2,784
1913–14	*	*	9,000	2,120

* Figures not available.

Bombay.—The Bombay Opium Department was abolished from 1st January 1914 owing to the stoppage of export to China. For the nine months April–December 1913 the total exports amounted to 2,705 chests. There was no revenue from pass duty, as the whole of the duty on opium exported during the year had been realised in the previous year, and the receipts realised during 1913–14 (£29,338) consisted almost entirely of sale proceeds of the right of export.

No auction sales of the right to export were held during 1913–14, and the Government of India have taken over the 12,100 chests which, owing to the stoppage of these sales, remained undisposed of out of the allotment fixed for export to China in 1913.

CHAPTER VI.

AGRICULTURE.

The present chapter gives an account of the conditions prevailing in each province during the agricultural year 1913–14, together with some information regarding the outturn of agricultural produce and the progress of co-operative credit societies. An account of the working of the Agricultural and Civil Veterinary Departments is given in Chapter XIII.

Season and Crop Reports.

Bengal.—Heavy rains in June waterlogged the jute crops, especially in Western Bengal, and injured the rice crop. Spring crops showed an improvement. The total cropped area was 28½ million acres. The sugar-cane crop fell short of the previous year. Harvest prices were generally higher, that of jute constituting a record.

Bihar and Orissa.—There were severe floods in Patna Division in August, and the winter crops were damaged by floods in Patna and Orissa, but on the whole they were fair. Spring crops were, generally speaking, good. Sugar cultivators did well. A noticeable feature was the large export of cattle to Bengal. Prices ruled high.

Assam.—Rainfall for the most part of the year was in excess, prejudicially affecting several crops in different areas. Cropped area increased and new land was reclaimed in Sibsagar. The autumn and winter rice crops were less than the bumper yields of 1912–13, and there was a considerable rise in the price of rice.

United Provinces.—The year was abnormally dry, both the western and eastern currents failing to bring anything like normal rainfall except to Gorakhpur and Benares divisions. Both autumn and winter crops suffered severely. The area sown for the former was almost normal, but the crops came to nothing; the cropped area for winter crops declined by 21 per cent. The population, however, were well prepared to meet the situation as, owing to a previous series of good years, they had reserves of grain and money; the distress was undoubtedly less acute than in the previous bad year (1907–8); the chief hardship took the form of a fodder famine, and the cattle suffered accordingly. A saving factor was the comparative excellence of the cotton crop and the high prices fetched by cotton. The beneficial practice of early sowing of cotton with irrigation is spreading. Another crop which suffered comparatively little from the draught was barley, and the area under barley showed an actual increase. The cultivators showed great energy in sowing spring-crops in places where no crop could be sown without preliminary watering; the percentage of wheat crop irrigated rose from 43 to 63.

Punjab.—Here, despite the early withdrawal of the monsoon, conditions were favourable for both autumn and spring crops except in the south-east of the province. The total matured area was in excess of the previous year. Cotton yielded 73 per cent., and wheat 15 per cent., above normal. The price of food-grains (except wheat) rose, chiefly owing to the famine in the United Provinces. The quinquennial cattle census shows a general increase in stock. Bullocks are replacing buffaloes for draught purposes as the cultivators, with increased prosperity, become able to afford the former more efficient animal.

Punjab Canal Colonies.—In the three older colonies (Lower Chenab, Lower Jhelum, and Chunian) conditions now approximate more or less to those in ordinary districts. The tightening up of water supply as a preparation for what may come when the triple canal project comes in force has been carried out satisfactorily and with a minimum of inconvenience to those concerned. The system by which certain grantees hold their land under condition of breeding horses, mules, or camels has proved most satisfactory since the conditions have been more strictly enforced, and the demand for remounts consequent on the war has been well met. There have been considerable purchases of proprietary rights; but there is a tendency in some parts for the

purchasers to sell or mortgage their lands, especially among military grantees who wish to return to their native districts. Assessments in the Lower Chenab Colony have resulted in an increased demand, but there was no fall in the market value of land. Of a total allottable area in these three colonies of 2,583,000 acres, all but 180,000 have been allotted.

In the new colonies of the triple canal project, 146,000 acres have been allotted in the Lower Bari Doab Colony, and preparations have been made for the colonization of nearly 40,000 acres in the Upper Chenab Colony. Good progress has been made in the laying out of towns, markets, and roads.

North-West Frontier Province.—The total cropped area was above normal, both irrigated and non-irrigated areas showing a rise, and the yield for almost all the crops except millet was above normal. Wheat, barley, and cotton did particularly well. The quinquennial census of cattle showed a general rise of agricultural stock. Prices were high but easier than in the previous year.

Central Provinces and Berar.—The autumn crops suffered from lack of rain, and some of the spring crops suffered from rain at harvest time: both were below normal. The cropped area decreased slightly. The total crop is estimated at three-fourths normal.

Burma.—The year was fair, though not as good as 1912–13. The rainfall was somewhat ill-distributed, and the Chindwin and Irrawaddy did not rise sufficiently. The cropped area increased—cotton, tobacco, and rubber appear to be gaining in popularity. The outturn of rice was estimated at 88 per cent. of normal. The year was a healthy one for stock.

Madras.—The S.W. monsoon was somewhat defective; the N.W. monsoon was fair, but there were serious floods. The total cropped area was above normal, but the outturn of most crops was below. Cholam, ragi, and cotton, however, showed an improvement on 1912–13. The area under groundnut was almost double that of 1912–13, and cotton also is growing rapidly in popularity; sugar cane did badly.

Bombay.—The season on the whole was a fair one, except in parts of some Deccan districts, where there was some distress. In Sind, damage was done by heavy rains. The total cropped area was about the same as in 1912–13, cotton and oilseed having increased and cereals decreased. The outturn of food-grains was about the same as in 1912–13 in the Presidency proper, but showed some falling-off in Sind. Cotton did well, but its price fell. Its cultivation is steadily extending.

Agricultural Produce.

(*For further details see Statistical Abstract for British India, Tables* 119 *to* 123.)

The following table shows the area under the principal crops, in British India, and their territorial distribution, for 1913–14. The cropped area is always greater than the area of cultivated land, owing to double cropping. The figures (which are preliminary) represent thousands of acres :—

Province.	Rice.	Wheat.	Barley.	Other Food Grains (chiefly Millet) and Pulses.	Total Food Grains and Pulses.	Oilseeds.	Sugar Crops.	Cotton*	Jute.	Total cropped Area.	Net cropped Area after deducting Area cropped more than once.
Bengal - - -	19,735	144	94	1,602	21,575	1,805	277	26	2,716	28,699	24,269
Bihar and Orissa - -											
Assam - - - -	4,755	—	—	15	4,880	331	38	35	101	6,419	5,907
United Provinces -	6,140	6,377	4,377	15,964	32,858	784	1,389	1,548	—	38,769	32,633
Punjab - - -	800	8,473	970	9,438	19,681	1,179	411	1,826	—	27,328	26,984
N. W. Frontier Province	44	1,031	291	1,040	2,406	156	32	60	—	2,838	2,829
Burma - - - -	10,331	24	—	1,610	11,965	1,482	40	300	—	14,674	14,148
Central Provinces and Berar.	4,986	2,533	—	10,373	17,892	2,348	20	4,892	—	25,812	24,479
Madras - - -	10,678	25	3	18,735	29,440	3,177	162	2,697	—	38,344	34,181
Bombay and Sind -	2,768	1,840	50	17,218	21,876	1,376	63	4,231	—	29,130	28,132
*Minor Areas - -	83	29	59	222	393	37	—	50	—	543	503
*Total - -	60,320	20,476	5,844	76,217	162,966	12,675	2,432	15,665	2,817	212,556	194,065

* Figures for Minor Areas are for 1912–13.

(Agricultural Produce.)

The chief crops under "other food grains and pulses" are various kinds of millets (including 13 million acres in Bombay and 11 million acres in Madras), grain, and maize (the two latter chiefly grown in Northern India). Of other non-food crops the principal is tobacco, chiefly grown in Bengal, Madras, and Bihar and Orissa.

Particulars for 1913–14 regarding some of the more important staples of Indian agriculture are given below. The figures are derived from returns of crop forecasts, and they include Native States as well as British India.

Rice.—Nearly one-third of the cropped area in British India is under rice. The provinces for which statistics are given in the table below ordinarily include 93 per cent. of the Indian rice crop. The figures are in thousands (omitting 000). Although Bengal is the principal producer of rice, Burma is the largest exporter. The foreign exports of rice are subject to an export duty of three annas per maund (about 6*s.* 10*d.* per ton). India produces almost half the rice of the world, and the rice exports in 1912–13 constituted a record. The 1912–13 crops, however, having been somewhat below the average, the exports for 1913–14 show a falling off. Prices fell away owing to slackening of the exceptional demand in the Far East.

Province.	Area in thousands of Acres.			Yield in thousands of Cwts.		
	Average of five years to 1911–12.	1912–13.	1913–14.	Average of five years to 1911–12.	1912–13.	1913–14.
Bengal - -	20,390	20,639	19,708	179,066	167,119	147,411
Bihar and Orissa	16,906	16,196	16,275	151,300	119,390	162,931
Madras - -	10,323	10,944	11,032	—	88,693	84,319
Burma - -	7,422*	9,966	10,133	63,193*	90,023	84,820
United Provinces	6,008	6,811	6,062	—	39,951	25,280
Assam - -	—	4,272	3,831	—	38,957	26,775
Bombay - -	1,576	1,624	2,389	14,012	16,398	24,245
Sind - - -	1,039	1,088	1,071	7,656	8,091	6,846
Coorg - -	81	83	82	986	1,067	705
Total - -	—	71,623	70,583	—	569,689	563,332

* Relates only to principal rice-growing districts of Lower Burma.

Wheat.—Wheat occupies usually about 10 per cent. of the whole cultivated area. The bulk of it is sown in autumn and reaped in April and May. The area under wheat has greatly expanded with the extension of irrigation. More than half of it is in the Punjab and the United Provinces, and rather more than half in each of these provinces is irrigated. The marginal table shows the area and yield of wheat, the figures being in thousands (omitting 000). The year was on the whole favourable in the important wheat-growing provinces, except in parts of the United Provinces, and the Central Provinces, where the crop suffered through drought.

Province.	Area in thousands of Acres.			Yield in thousands of Tons.		
	Average of five years to 1911–12.	1912–13.	1913–14.	Average of five years to 1911–12.	1912–13.	1913–14.
	Acres.	Tons.	Acres.	Tons.	Acres.	Tons.
Punjab - - -	9,483	9,316	9,177	3,282	2,989	3,428
United Provinces -	6,302	7,382	6,373	2,547	2,938	2,205
Central Provinces and Berar.	3,233	3,743	3,383	826	1,062	683
Bombay - -	1,677	1,735	1,789	389	543	444
Sind - - -	483	487	481	122	204	114
Bihar and Orissa -	1,255	1,270	1,342	440	529	583
North-West Frontier Province.	1,048	879	992	241	195	259
Bengal - - -	151	146	144	39	51	51
Central India - -	2,215	2,805	2,684	402	936	492
Hyderabad - -	1,040	851	702	69	48	43
Rajputana - -	945	906	622	212	219	122
Elsewhere - -	34	4	8	3	1	3
Total - -	27,866	29,524	27,697	8,572	9,715	8,427

(Agricultural Produce.)

The exports of wheat and wheat-flour are subject to great fluctuations, as the marginal figures show. The export demand for wheat has led to an extension of cultivation. This is very beneficial to India, partly because the crop is a profitable one, and partly because in years of scarcity the rise in prices renders the grain available for home consumption. In a famine year, the export falls to a trifling quantity. The wheat exported in one financial year is drawn mainly from the crop of the previous year, and the heaviest shipments are from May to August. The 1912–13 season was not a very good one, and the exports declined considerably.

—	Wheat.	Flour.
	Tons.	Tons.
1904–5	2,150,000	51,700
1905–6	937,500	44,950
1906–7	801,400	40,900
1907–8	880,500	37,200
1908–9	109,750	30,100
1909–10	1,050,600	35,100
1910–11	1,266,100	40,200
1911–12	1,361,200	51,500
1912–13	1,660,200	68,500
1913–14	1,202,200	79,400

Sugar.—The area under sugar was reported to be 2,519,800 acres in 1913–14, and the yield was estimated at 2,262,600 tons. Both area and yield were somewhat less than in 1912–13, though above the average for the five previous years. The drought in the United Provinces (which produce about half the total yield) accounts for the decrease. The figures, however, are not very reliable, as in many large sugar-growing areas no accurate records are available, and sugar-cane is often grown in small and irregular clumps whose extent is not easily estimated. To the sugar-cane cultivated in British India must be added the extensive crops grown in Native States. In estimating the total output of sugar, account must also be taken of the large production of palm sugar, chiefly in Bengal, Madras, and Burma. Allowing for the former item, it is probable that India now produces about 3 million tons yearly, or one-third of the world's cane crop. By no means all of the sugar produced is converted into "refined" sugar; a considerable quantity both of cane in the raw state and of the unrefined sugar or *gur* is consumed as food, but the increasing demand for refined sugar, which is supplied chiefly from abroad, is prejudicially affecting the *gur* industry. The question of improving methods of cultivation and of manufacture both of *gur* and refined sugar is receiving careful attention. Imports of sugar (including confectionery and molasses) are given in the margin. The large increase in the imports from Java is remarkable. There are now no countervailing duties.

Countries.	1911–12.	1912–13.	1913–14.*
	Tons.	Tons.	Tons.
Java	408,000	466,000	578,000
Mauritius	85,000	150,000	136,000
Austria-Hungary	12,000	53,000	74,000
Other Countries	2,000	6.000	7.000
Total	507,000	675,000	795,000

* 16 Dutch Standard and above only.

Tea.—The marginal table furnishes an estimate of the cultivation and the production of tea in India during the years 1911 to 1913. The bulk of the plantations are in Assam and Bengal; the figures for other provinces are less reliable. Since 1885 the area under cultivation has doubled, and the production has increased fourfold. During 1913 the tea gardens employed 572,533 persons permanently and 94,379 temporarily. The capital invested by joint stock companies in tea production is returned at £17,906,210, and, in addition, a large but

Province.	Area in thousands of Acres.			Production in thousands of Lbs.		
	1911.	1912.	1913.	1911.	1912.	1913.
Assam	503	362	368	179,053	198,798	199,722
Bengal		150	156	64,654	70,524	80,109
Bihar and Orissa		2	2	285	269	311
United Provinces	8	8	8	2,535	2,657	2,579
Punjab	9	9	9	1,489	1,931	2,130
Southern India	53	59	64	20,510	23,615	22,245
Burma	2	2	3	76	83	154
Total	575	592	610	268,602	297,879	307,250

(Agricultural Produce.)

unknown quantity of private capital is invested. The average price realised in Calcutta in 1913–14 was 8·25*d.* per lb. as compared with 7·67*d.* per lb. in 1912–13. The exports of Indian tea by sea during the last three years are returned as shown in the margin. About 2 million pounds were also exported by land, chiefly to Afghanistan.

Countries.	1911–12.	1912–13.	1913–14.
	Millions of Lbs.	Millions of Lbs.	Millions of Lbs.
United Kingdom	192·9	198·4	209·0
Russia - -	26·4	33·1	33·4
Australasia -	10·0	9·4	9·7
Canada - -	10·6	11·4	11·6
China - -	5·1	9·2	11·0
Ceylon - -	4·3	4·2	3·9
Turkey-in-Asia -	3·1	4·4	2·8
United States -	3·1	2·3	1·9
Other Countries-	5·4	6·2	6·2
Total - -	260·9	278·6	289·5

The growing appreciation of the superior richness and strength of Indian tea is shown by the increased imports into this country. In 1875 the United Kingdom drew 86 per cent. of its supplies from China and 13 per cent. from India, while in 1913 of the tea retained for home consumption only 3·1 per cent. came from China and 56·5 per cent. came from India.

Jute.—India has a virtual monopoly of the production of jute, which is grown almost exclusively in Bengal, Bihar, and Assam. The marginal table (000's omitted) gives the figures for these provinces. In 1913 the crop was damaged by excessive rain, and the estimated yield for 1914 shows a considerable increase, especially in the Western Bengal area. Prices, which have been rising ever since 1909, reached the record average figure of £4 14*s.* 8*d.* per bale for 1913 owing to the shortage of that year.

—	Area in Acres.	Outturn in Bales of 400 lbs. each.
Average, 1908 to 1912	2,950	7,905
Year 1913 - -	2,911	8,893
Year 1914 - -	3,359	10,444

The total Indian mill consumption of raw jute in 1913–14 was estimated at 4,435,000 bales as against 4,967,000 bales in 1912–13. Exports while falling in quantity rose in value. In addition there was a large export of jute manufactures which, owing to the boom in the jute trade rose to nearly double the figure of three years ago (*see* marginal table, omitting 000). Of the raw jute exports in 1913–14, 38 per cent. went to the United Kingdom, 21 per cent. to Germany, and 15 per cent. to the United States.

Year.	Raw Jute.		Jute Manufactures.	Total Exports.
	Quantity.	Value.	Value.	Value.
	Tons.	£	£	£
1911–12 -	810	15,038	10,672	25,710
1912–13 -	876	18,034	15,247	33,281
1913–14 -	768	20,551	18,849	39,400

Cotton.—One of the most important crops for the grower, the Indian manufacturer, and the exporter, is cotton. The estimated area and yield of cotton in India are returned as shown in the table below for the last three years. The figures are in thousands (omitting 000). About half the total product is from Bombay and the Central Provinces. The estimated output of the 1913–14 season constitutes a record, being 13 per cent. more than in the previous year.

(Agricultural Produce.)

Province.	1911–12.		1912–13.		1913–14.	
	Area (Acres).	Yield (Bales).	Area (Acres).	Yield (Bales).	Area (Acres).	Yield (Bales).
Bombay - - - - -	5,121	599	6,064	1,324	6,351	1,397
Central Provinces and Berar -	4,648	913	4,493	910	4,715	961
Madras - - - - -	2,878	335	2,414	471	2,593	513
Punjab - - - - -	1,582	241	1,575	373	2,053	594
United Provinces - - -	921	251	1,158	428	1,586	484
Sind - - - - - -	346	124	296	123	332	133
Burma - - - - -	186	32	233	46	288	50
Bihar and Orissa - - -	88	19	92	19	86	19
Bengal - - - - -	63	25	51	21	51	13
North-West Frontier Province -	56	12	56	13	59	14
Assam - - - - -	36	11	35	10	33	12
Ajmere-Merwara - - -	27	12	50	26	57	15
Hyderabad - - - -	3,234	300	2,888	300	3,653	400
Central India - - - -	1,400	228	1,314	206	1,426	273
Baroda - - - - -	665	96	762	196	749	175
Rajputana - - - - -	263	73	393	125	470	132
Mysore - - - - -	101	17	154	19	93	16
Total - - - -	21,615	3,288	22,028	4,610	24,595	5,201

The exports of raw cotton from India in recent years have been as shown in the margin (000's omitted). The bulk of the Indian cotton exported goes to Japan and Western Europe. Very little goes to England, as Lancashire requires a finer class of cotton than India can as yet readily supply. The exports of 1913–14 showed an expansion as the result of favourable crops in the last two years. Prices started high in 1913 and rose still higher.

—	Quantity.	Value.
	Cwts.	£
1911-12 -	7,329	19,684
1912–13 -	7,377	18,890
1913–14 -	10,626	27,362

Oil Seeds.—The area under, and the yield of, the main oil-seed crops of India are given approximately in the margin. The figures are in thousands (omitting 000). The rape and mustard-seed crop is grown chiefly in the United Provinces, the Punjab, and Bengal; linseed in the United Provinces, the Central Provinces, Bihar, and Hyderabad; sesamum (til or jinjili) in the United Provinces, the Central Provinces, Bombay, Madras, and Hyderabad; while the groundnut area lies in Madras, Bombay, and Burma.

Seed.	Average of Five Years to 1911–12.		1912–13.		1913–14.	
	Area.	Yield.	Area.	Yield.	Area.	Yield.
	Acres.	Tons.	Acres.	Tons.	Acres.	Tons.
Rape and mustard -	6,157	1,077	5,956	1,235	5,941	1,043
Sesamum - -	5,226	455	4,980	472	5,119	408
Linseed - - -	3,457	422	4,125	529	2,997	382
Groundnut - -	890	482	1,366	670	1,663	732

Exports of seeds have been as shown in the margin for the last three years (in 000 cwts.). Linseed goes chiefly to the United Kingdom (3,146,000 cwts.), and France (2,309,000 cwts.). Belgium took 1,977,000 cwts. of rape seed. Groundnuts go chiefly to France. The large exports of 1913–14 represent the excellent crop of 1911–12. The 1912–13 and 1913–14 crops were less good.

Seed.	1911–12.	1912–13.	1913–14.
	Cwts.	Cwts.	Cwts.
Linseed -	10,440	7,090	8,277
Rape - -	4,710	4,357	4,980
Cotton -	4,073	2,611	5,687
Sesamum -	1,896	1,557	2,243
Groundnuts -	3,828	4,867	5,558
Castor -	2,404	2,213	2,698
Other sorts -	1,336	1,155	2,109
Total -	30,014	24,537	31,652

Co-operative Credit Societies.

These societies were started by Government as an experiment in order that the poorer classes, and more particularly the cultivators, might be enabled to borrow money at reasonable rates, and might, at the same time, learn self-help and self-dependence.

The Co-operative Credit Societies Act of 1904 was passed in order to remove these societies from the operation of the general law; it conferred on them certain privileges, and laid down certain broad lines of guidance. In 1912 an amending Act was passed in the light of eight years' further experience. The 1912 Act covers all co-operative societies (the 1904 Act only dealt with credit societies), it recognises central unions, or federations of societies, which, since 1904, had become an important part of the movement, and differs in certain other respects from the 1904 Act. While imposing certain conditions necessary for the safe working of the societies and for the preservation of their co-operative character, the Act leaves as much as possible to the discretion of the local Government, and the types of society favoured in the different provinces vary widely.

The provincial registrars of co-operative societies are officials, and official aid is given in various ways, though loans by Government were never very extensive, and form a steadily decreasing proportion of the total working capital. Aid is also enlisted from non-official gentlemen of local influence, and in most provinces is more readily forthcoming than at the beginning of the movement. The accounts of every society must be annually audited by a person approved by the Registrar. The latter also has a certain discretion as to granting applications for registration, and, in view of the extraordinary popularity of the movement, it has been found advisable in most provinces to adopt a restrictive, rather than a stimulating, policy in dealing with applications.

The two main difficulties which were foreseen in the case of village societies were those of proper supervision (obviously necessary in view of the prevailing illiteracy) and the provision of funds. Both these difficulties have been met by the "central societies" referred to above. These are of various kinds, the type most generally approved being the "Central Banking Union" which prevails in Bengal and is being largely adopted elsewhere. These unions are federations of village societies; they maintain a staff of trained inspectors who are supplementing, to an increasing degree, the inspecting work of the official staff, and they also act as banks for their affiliated societies, forming a medium between the latter and the open money market. It is through their access to money markets beyond their own localities that the village societies obtain their chief advantage over the local money-lender. In Bombay there is a central co-operative bank for the entire province with a Government guarantee. Others, without such guarantee, are being formed in other provinces.

The village societies are almost all on the unlimited liability basis, and therefore have to exercise considerable discrimination in admitting members. They may not distribute their profits among members save with the sanction of the local Government, but in some provinces (*e.g.*, Burma, the United Provinces, and the Punjab) it has been found that societies formed on a share-basis answer best. Dividends, however, may not in those provinces be distributed until 10 years after the first share-payment. In other provinces the strict Raiffeissen rule is observed, and profits on working (beyond what is required for the reserve) go to the reduction of interest on loans to members.

The rates of interest charged by village societies vary from 9½ per cent. in Bombay to 15 per cent. in Burma and Bengal: the average rate is far below that charged by money-lenders—indeed, the money-lenders are being forced to lower their rates by the competition of the societies. It is estimated that the loans of credit societies to their members represent a saving to the agriculturist of more than 10 per cent. in interest charges. The interest paid by the societies on deposits is usually 6 to 9 per cent. In many districts the money-lenders themselves invest in these societies, and in some places it is said that the hoards of the villagers are being drawn upon for the same purpose.

Of the purposes for which loans are required the most important is payment of old debts. In many cases the society is able to arrange a composition between its members and the money-lender, so that the amount actually repaid does not represent the entire burden from which the villager is thereby freed. Hostility to the co-operative movement on the part of the money-lenders is, in many parts, keen and systematic;

but elsewhere they have themselves been drawn into it. The purchase of plough-cattle stands next in importance among the objects for which loans are taken. Surprisingly little is drawn for uneconomic purposes such as expenses of ceremonial.

The educative effect of the movement in the villages is considerable. The societies are in close touch with the Agricultural Departments, and are much utilised by the latter for assisting demonstrations, distributing seed, &c. In some cases they have begun to interest themselves in primary education, village sanitation, and other matters of local interest. Their efforts at settling disputes between members have led to an appreciable decrease in litigation. Membership of a society is regarded as a certificate of good position.

The urban credit societies, chiefly formed among salary earners, form a small but increasing part of the movement. These are chiefly limited liability concerns. There are also co-operative societies, in town and country, formed for objects other than credit—*e.g.*, for purchase of seed or manure, or, in the case of weavers and other artizans, of raw material for their trade; and for marketing the goods of members. But these ventures represent a more advanced stage of education in co-operation than the credit societies, and their development is comparatively slow. In Burma, cattle insurance societies have proved a great success.

The astonishing rapidity with which the movement has spread is shown by the following table, which gives the figures for British India together with Mysore and (for the last two years) Baroda. (It should be recollected that the present policy in almost every province is to check any too rapid extension of the movement) :—

At end of Year.	1905–6.	1906–7.	1907–8.	1908–9.	1909–10.	1910–11.	1911–12.*	1912–13.	1913–14.
Total No. of members.	28,629	90,844	149,160	184,889	230,698	314,101	403,318	573,536	744,226
Total working capital.	£ 32,000	£ 158,000	£ 294,000	£ 538,000	£ 827,000	£ 1,358,000	£ 2,238,000	£ 3,562,000	£ 5,145,000

* Figures for 1911–12 exclude Mysore.

The following table shows the position of the principal provinces as regards the movement :—

	Central Societies.	Non-Agricultural Societies.		Agricultural Societies.	
	No. of Societies.	Total Membership.	Working Capital.	Total Membership.	Working Capital.
			£		£
Madras - - -	16	21,694	101,459	77,902	371,995
Bombay - - -	6	26,525	131,011	40,470	190,142
Bengal - - -	40	14,352	86,006	71,282	294,107
Bihar and Orissa -	12	12,377	9,935	37,270	89,686
United Provinces -	55	5,755	29,162	99,891	338,068
Punjab - - -	38	3,263	56,910	155,250	869,795
Burma - - -	96	3,414	40,946	29,889	217,726
Central Provinces -	38	1,778	6,419	34,313	171,749
Assam - - -	9	1,672	14,824	11,536	19,389
Elsewhere - -	19	18,864	78,306	42,019	130,789
Total - - -	329	109,694	554,978	599,822	2,693,446

Of the total capital of the agricultural societies, £596,503 represents share capital and deposits of members, £1,865,824 loans and deposits of non-members and other societies, £163,681 reserve, and £64,837 loans from Government.

The following is a brief account of the working of the movement in the principal provinces :—

Bengal.—In 1913–14 the total membership of agricultural societies rose from 43,000 to 71,000, and their working capital nearly doubled. Special attention was paid to the organisation of central banking unions; even in districts where the movement was still in an initial stage, as it is found that these unions are excellent

agencies for organising and propagating the movement in such cases. Non-official help is much more freely forthcoming now that the movement has achieved popularity. The central banks are reducing their rates of interest on loans to affiliated societies—in most cases to 9–10 per cent., and there has been a consequent reduction in the rates charged by societies to their members. The most usual rate is now 15 per cent., and further reductions are probable. A scheme has been put forward for a provincial bank. The agricultural societies in Bengal are of the strict Raiffeissen type and do not have shares or dividends. Comparatively little attention has as yet been paid in Bengal to the development of co-operative production and distribution.

Bihar and Orissa.—The total membership rose from 31,000 to 51,000. In Orissa the movement has to contend against the hostility of a large class of money-lenders; in the backward parts of Chota Nagpur good work is being done by missionaries and other non-officials. In South Bihar alone are the local influential classes throwing themselves into the work. The Central Societies, which, at the end of the year numbered 12, are progressing in efficiency. A Provincial Co-operative Bank has been founded. It operates on a credit from the Bank of Bengal and deals, as yet, only with Central Societies.

Assam.—The number of agricultural societies increased by 60 during the year, and the number of members increased by 2,700. Some of the societies have purchased cane-crushing machines which are hired out to members and others at differential rates.

United Provinces.—The failure of the monsoon severely tested the co-operative societies of the United Provinces, members having had to borrow extensively to replace the plough-cattle lost through lack of fodder and to purchase seed. The societies stood the test admirably. The directors of the central societies, early foreseeing the coming strain, adopted a cautious policy, and they were fortunately able to raise additional capital on favourable terms, while the village societies had very fair reserves in hand. Government advances were also made to members in some districts on the recommendation of their societies. As a result, it is believed that all genuine requirements of members were met. The financial position of the societies remains sound, and it is anticipated that a couple of normal years will suffice to remove all traces of the strain which the societies have undergone. The formation of new societies was, in the circumstances, deliberately discouraged, and caution as to admitting new members was enjoined on existing societies. Nevertheless, the total number of members rose from 107,000 to 116,000. The central societies employ a well-paid supervising staff, numbering 117 trained inspectors. Societies are paying more attention to improvement of agricultural methods. An experimental cattle insurance society has been started, and the subject of cattle insurance is being carefully studied.

Punjab.—Here the movement has been more extensive than in any other province, Owing to the failure of several large joint stock banks the policy during 1913–14 has been to strengthen the position of existing societies rather than to encourage new formations. The strain of the financial crisis was met by the co-operative banks and societies with remarkable success; naturally receipts were affected and deposits withdrawn to a larger extent than usual, but this was to meet urgent calls and was not due to any wide spirit of mistrust in the stability of the societies. The working capital rose from £700,000 to £1,200,000 and the membership from 133,780 to 160,892. There are 38 central societies, including 18 central banks, whose functions are purely financial, and 20 unions which also exercise supervision. The loans overdue from members of agricultural societies show a decrease, but the amount is still excessive. It is estimated that the amount of indebtedness already cleared off by means of co-operative societies is £667,000. Agricultural societies are beginning to take up co-operative trading. It has been found that where the movement has made way, interest in primary education has greatly increased, and litigation has been checked by the appointment of local Panchayats to settle minor disputes.

Central Provinces and Berar.—Here also the effects of the financial crisis was felt, but nevertheless there was a gratifying progress, the number of members rose from 28,396 to 42,222, and the working capital from £230,000 to £430,000. The newly started Central Bank worked well, and its loans to the central societies were recovered in full. The Provincial Union is gradually strengthening the non-official element in

the control of the movement. A successful feature is the establishment in Berar of co-operative seed-farms for the propagation of Government "Roseum" cotton seed among members. There are also societies for cattle-breeding, and cotton-ginning, and a dairy society, while the central banks maintain depôts for the sale of agricultural implements.

Burma.—The number of societies rose from 804 to 1,155, although the official policy is to limit rather than to encourage new formations. There are 67 unions and 4 central banks of which the principal is the Upper Burma Central Bank. Supervision is maintained by the unions over the societies, the cost being met by a rate raised from the affiliated societies. There are 57 cattle insurance societies, whilst distribution societies have been formed for the sale of agricultural produce direct to Rangoon exporters, the supply of railway sleepers, the financing of silk-weaving and other objects. In the Mon Canal tract societies have been formed on Government initiative and with financial support in connection with a canal colony scheme.

Madras.—The number of societies rose from 1,078 to 1,333. There was a marked growth in urban societies, including town banks, stores, and building societies. Almost all these worked at a profit. Of the loans granted by agricultural societies, 53 per cent. was granted for productive purposes and 44 per cent. for repayment of debts. Four new non-credit societies were started for the purposes of raising pure cotton, purchasing ploughs, cattle food, &c. There were 16 central societies, all of which save one recorded increased transactions. The collection of interest, current and arrears, is not altogether satisfactory, especially in agricultural societies. The remedy for this appears to be for the central banks to devote a larger part of their resources to the support of an adequate staff of inspectors.

Bombay.—The membership of all societies has risen from 46,221 to 66,707. Government loans to agricultural societies now amount to $6\frac{1}{2}$ per cent. only of the total working capital compared with 9 per cent. of the previous year. In Bombay, as in the Punjab, the credit of the lesser Joint-Stock Banks was shaken by numerous failures in the year, but in spite of this the paid-up share capital of the Central Co-operative Bank was increased, and a considerable proportion of the profits were carried to the reserve fund. A need is felt for more intermediary institutions to fill the gap between the Central Bank and the agricultural societies. The official staff has at present to perform supervisory duties which might with advantage be undertaken by Union societies. Societies have been started for the collection and distribution of selected seed and for the storage of grain and fodder, and are doing well; a movement is on foot to establish Co-partnership Housing Societies. It has been found that societies composed entirely of uneducated sharers are impracticable, and those that were formed have been wound up.

CHAPTER VII.

FORESTS.

(*For further details see Statistical Abstract of British India, Tables* 59, 60, *and* 125.)

General.—Systematic conservancy of the Indian forests is based on the Forest Act of 1878, which gave the Government powers of dealing with private rights in the forests of which the chief proprietary right is vested in the State. Special forest enactments have also been passed for some provinces, and a staff of trained forest officers has been organised. Forest administration is based upon the principle that State forests should be administered for the public benefit; they are worked, therefore, with a view to combining all reasonable facilities for their use by the public with the protection necessary for their preservation as sources of fuel and timber and as retainers of moisture in the soil. The forests are classified as "reserved," "protected," or "unclassed." In the reserved areas the control of the Forest Department is more complete than in the protected or unclassed forests. In the latter, the area of which cannot be precisely stated, are included large tracts of unoccupied waste, especially in Burma, much of which will probably become agricultural land. Among the most important measures of conservancy are the prevention, so far as possible, of the fires which are liable to devastate the forests, the plantation and reproduction of timber and firewood, the maintenance of a supply of seed-bearing trees, and the regular reproduction of timber of the more valuable kinds. About half of the reserved forests is at present worked under regular working plans. At present the reserved (including leased) forests cover an area of about 97,000 square miles; and there is scope for further reservation in Assam and Burma. Outside the reserves there are about 142,000 square miles of State forests, including 8,500 square miles of protected forests. Some part of this will eventually be brought within the "reserve" area. In thus creating a "reserve" the fullest consideration is given to claims of persons who have hitherto exercised rights in the area concerned. The forests dealt with in this chapter are, almost exclusively, State forests; there are also areas under the management of district officers and of local bodies. The limited areas of private forest, except where they have been leased to the Government, are being gradually exhausted. In every province a very few of the most valuable timber trees are declared to be reserved trees, and can only be felled under special licence. Outside the reserves, the country folk are generally allowed to obtain from the State forests timber, bamboos, firewood, and grass for their own use without charge; inside the reserves, persons specially licensed are allowed to extract timber or other produce, on payment of fees, though all rights recognised by the forest settlements are preserved to the public. Offences against the forest laws consist chiefly of illicit grazing and unauthorised felling or removal of produce. Forest revenue is raised by royalties on, or by the sale of, timber or other produce and by the issue at specified fees of permits to graze cattle, or to extract for sale timber, firewood, charcoal, bamboos, canes, and minor forest produce. The gross revenue derived from forests in 1913–14 was £2,229,872, including £445,353 and £1,633,378 received for timber and other produce removed from the forests by Government agency and by consumers (or purchasers) respectively. The charges amounted to £1,174,488, leaving a net revenue of £1,055,384. Some of the Native States, such as Kashmir, Mysore, Travancore and Baroda, have also organised a systematic forest administration, from which they derive a considerable revenue. The following table shows the area in each province under the Forest Department and the net revenue derived therefrom:—

(Forests.)

	Forest Area on 30th June 1913.			Percentage of Total Area of Province under Forest.	Net Revenue. for financial Year 1913–14.
	Reserved.	Protected.	Unclassed.		
	Sq. Miles.	Sq. Miles.	Sq. Miles.		£
Bengal	4,871	1,711	4,030	13	65,100
Bihar and Orissa	1,723	1,056	—	3	9,100
Assam	4,381	—	18,290	46	12,500
United Provinces	4,117	30	29	4	121,100
Punjab	2,205	5,200	1,311	9	29,100
North-West Frontier Province	236	—	—	2	9,100
Central Provinces and Berar	20,572	—	—	20	82,200
Burma	27,023	—	106,592	79	486,500
Madras	18,641	—	825	14	82,300
Bombay	11,967	495	—	10	167,600
British Baluchistan	313	—	472	1	—
Coorg	520	—	—	33	—
Ajmer-Merwara	142	—	—	5	—
Andamans	156	—	2,015	69	—
Total	96,867	8,492	133,564	23	1,055,380*

* Includes revenue and expenditure for areas directly under the Government of India, and general charges in India and England.

The following paragraphs treat of forest administration in each Province for the year ending 30th June 1914 :—

Bengal.—The Bengal forest areas lie in the Sundarbans, the Chittagong hill tracts, and in the extreme north of the Rajshahi Division. Working plans have been, or are being, provided for 4,982 square miles. Protection against fire was successfully conducted, only 5,764 acres, or 1½ per cent. of the protected area, having been burnt.

Forest offences have been showing an increase, but this is attributed to greater vigilance on the part of the staff. In 1913–14 such offences numbered 2,171.

Arrangements have been made for the extraction of bamboos for paper-pulp in Darjeeling district by agreement with an agency, and work is to be commenced in April 1916. Similar negotiations are proceeding for the Chittagong hill tracts.

The yield of timber was 7·9 million cubic feet, as against 6·1 in 1912–13, the increased outturn being owing to arrears from the previous year. Practically all the timber (except for Government and railway requirements) is extracted by private agency, sections of standing wood being sold by auction or tender, except in Chittagong and the Chittagong hill tracts where it is still sold at fixed royalty rates. About thirty elephants were secured. The surplus revenue continues to increase.

Bihar and Orissa.—Working plans are in force over the whole area for which they are at present required. The year was a favourable one for fire protection, and there was a gratifying diminution of malicious firing in Singhbhum, where this offence was rife in the previous year. The outturn of timber was 1·5 million cubic feet, and of fuel 16 million cubic feet, and nearly 10 million bamboos were extracted. Minor products include mica, iron, and chrome ore.

Inquiries as to the effect on water supply of the denudation of forest areas show that in many localities denudation is proving prejudicial. It is proposed to take action to prevent this, principally by taking over the management of forest areas included in estates managed under the Encumbered Estates Act, as the acquisition of land for reservation under the Forest Act is costly.

Assam.—There is at present little systematic working save in the *Sal* forests of the Western Circle Reserves. The forest staff has at present more than enough to do in examining the enormous "unclassed" areas of which the sylvicultural conditions are little known, and of which a large part still awaits survey. Proposals are now under consideration for extensive additions of waste lands to the reserved area. Communications are in need of improvement, but satisfactory progress is being made. Demand for timber is improving, and private enterprise is superseding departmental agency in extraction. The outturn of timber was 6·8 million cubic feet, and of fuel 7·8 cubic feet. The royalty on tea-box timber has been temporarily remitted to enable the local mills to compete against foreign enterprise. Minor produce includes lac, rubber, and ivory. 136 elephants were caught in the year. In view of depletion

(Forests.)

of numbers, a scheme has been introduced by which elephant *mahals* will be closed eight years out of ten. The surplus revenue of the Department showed a slight increase.

United Provinces.—The settlement of the Kumaon Circle is proceeding and will, it is anticipated, be completed in 1916. Any profits from the Kumaon forests will not be merged in the provincial revenues, but will be expended on objects of local utility. Afforestation of waste lands as fuel and fodder reserves is in progress, especially in Bundelkhand. The resin industry has expanded remarkably ; there are two distilleries whose net profit during 1913–14 amounted to £3,742. The new distillation plant is a great success. Depôts have been made for treating railway sleepers with creosote on a larger scale than has hitherto been attempted in India. The drought of 1913–14 killed many trees, and resulted in an increase of the area damaged by fire, which rose from 59,251 acres in 1912–13 to 62,513 acres. Forest offences also increased owing to the scarcity. The outturn of timber, however, was good, being 9½ million cubic feet. The outturn of fuel and minor produce also showed an increase. The surplus revenue decreased owing to exceptional expenditure in the Kumaon Circle. The question of grazing is one of some difficulty, as some areas are deteriorating through excessive grazing incidence. Owing to the scarcity of fodder, large numbers of cattle were admitted in 1913–14 into the closed blocks.

Punjab.—The area under the Forest Department has been reduced, chiefly by the giving up of almost 400 square miles for colonisation. Further similar disforestation measures are in progress, and over 1,200 square miles will be similarly disforested in the next two or three years. Working plans exist or are being compiled for all except 164 square miles of the forests requiring them. Offences against forest laws show a serious rise—from 9,956 in 1912–13 to 11,951—mostly unauthorised fellings and illicit grazings. Partly this is due to increased activity of the forest staff, but also to the curtailment of grazing area due to the spread of canal cultivation. The progress of sylvicultural operations must necessarily entail stricter supervision. The area burnt amounted to under 1 per cent. of the area protected. A new resin factory is being erected in place of the old one, with an up-to-date French plant capable of dealing with 40,000 maunds of crude resin annually. The old factory was only at work for the first eight months of the year. Resin-tapping was confined to two divisions and resulted in a supply of 15,144 maunds during 1913. It is hoped to substitute contract for departmental agency for tapping shortly. The outturn of timber was 5·8 million cubic feet as against 7·9 million in 1912–13, the decrease being due to an overstocked market.

North-West Frontier Province.—The total outturn of timber was 3·4 million cubic feet, as against 2·9 million only in 1912–13. Sales of standing trees have greatly developed during the last few years. Owing, however, to a rise in the expenditure, the financial surplus decreased.

Central Provinces and Berar.—The forest area decreased by nearly 900 square miles, chiefly owing to disforestment. Working plans are sanctioned or under preparation for all except 309 miles of the Reserved area for which they are considered necessary. Progress was made in constructing cheap but serviceable roads, the want of which is keenly felt. Forest offences increased chiefly owing to the dryness of the season. The financial surplus showed a satisfactory increase. In this Province by far the largest item of forest revenue is grazing fees and fodder grass. The receipts from the latter greatly increased owing to the large export of fodder to the United Provinces, where there was a scarcity. The number of cattle grazing decreased by 280,000 ; but this cannot be ascribed to the new grazing rules, as four-fifths of the increase occurred in Berar, where the old rules are still in force, and where it was due to the disforestation of numerous small patches.

Burma.—New reserves, aggregating 285 square miles, were notified during the year. Of the 114,111 square miles of unclassed forest it cannot be estimated how much is timber-bearing area and how much is mere waste land. The unclassed forests and nearly a quarter of the reserves are open to grazing. Cases of unauthorised fellings showed an increase attributed to the exhaustion of supplies from the unclassed forests. The area protected from fire decreased by 25 per cent. owing to the abandonment of such protection in moist forests and certain other areas. 297,000 tons of teak were extracted (of which 244,000 were extracted by private agencies), as against 255,000 in

the previous year. Roads and buildings are urgently needed, but the necessary funds are not forthcoming.

Madras.—The reserved area was increased by 222 square miles. More attention was paid to working plans than in previous years, and many, if not all, the existing working plans are to be overhauled. Forest offences rose from 29,892 to 31,777. It is hoped that the policy of relaxing control over small scattered reserves and entrusting grazing areas to Panchayats will lessen the number of offences. Successful experimental cultivation of sandal, mahogany, and other timbers was carried out in various districts. There was a substantial increase in the output of timber, fuel, and bamboos. In accordance with the recommendations of the Forest Committee of 1912, orders were given at the commencement of the year for the starting of 50 Panchayats with jurisdiction over 24,000 acres of reserves. The first batch of trained rangers passed out of the Coimbatore College.

Bombay.—Working plans are still required for 1,533 square miles. The number of Forest offences was slightly in excess of 1912–13. The year was unfavourable for fire protection owing to the general abundance of grass fodder, which meant that less grass than usual was removed from the forests; in Sind there was also a considerable amount of deliberate incendiarism. Experiments in lac culture were carried out in the Central and Sind circles. Extraction of timber by departmental agency is little practised except in the Southern Circle, where there are two Government sawmills. The financial result of the year's working showed a surplus of £167,705 as against £153,338 in 1912–13—the increase being chiefly due to the favourable condition of the timber market. The total outturn of timber was 6,344,965 cubic feet, and of fuel 43,074,067 cubic feet.

Coorg.—The total outturn of timber (including Sandalwood) was 394,545 cubic feet as against 370,632 in 1912–13. "Spike" disease in sandal trees is still virulent, though it has not spread to any new area. The prices fetched for sandalwood again constituted a record. The campaign against Lantana continues vigorously.

Andamans.—The policy of development to be adopted in the north and middle island is still under discussion. Survey was begun in the latter island during the year. It is proposed to make a rough exploration of the Little Andaman and some of the Nicobar islands. The rubber experiments are promising. The outturn of timber was 740,000 cubic feet, as against 594,000 in 1911–12, the increase being due to delays in selling during 1911–12. Revenue shows a steady tendency to increase. A new sawmill is to be procured, the present one being inefficient.

Imperial Forest Research Institute.

The work of the Institute comprises tuition and research in sylviculture, forest economy, zoology, botany and chemistry. During 1913–14 investigations were undertaken in connection with working plans, the cultivation of the "sal," tree-diseases, &c., while the Forest Economist, Chemist, and Botanist were engaged in inquiring into the production and utilisation of many kinds of forest produce, such as antiseptics for railway sleepers, matches, tea-boxes, &c., grasses for paper pulp, resin, tan-barks, and other products, and the Zoologist studied *sal* insect pests in the United Provinces and elsewhere.

In the Forest College on the 30th June 1914 there were 72 students attending the Rangers' classes and 29 attending the recently formed Provincial Service Class.

CHAPTER VIII.

MINERAL PRODUCTION AND MINING.

(*For further details see Statistical Abstract for British India, Table* 222; "*Quinquennial Review of the Mineral Production of India during the years* 1904 *to* 1908" *in Records of Geological Survey, Vol.* XXXIX., 1910.)

Mineral Production.

General.—During recent years much has been done to develop the mineral resources of India. The minerals that have been chiefly worked are those which can be consumed by direct process on the spot, or which, owing to their abundance and cheapness, are suitable for export in the raw state. The output of minerals in India (including Native States) has shown a marked increase in recent years, the estimated value of that for the four years, 1910 to 1913, is given in the margin (building and road-making materials being excluded). In 1913 coal rose 10 per cent. in quantity and 15 per cent. in total value. Manganese and petroleum also showed considerable increases. The most important minerals are coal and gold, the production of which in 1913 was valued at £3,798,137 and £2,291,916 respectively, followed by manganese ore, £1,211,034, petroleum, £1,034,586, and salt, £472,045. These estimates of values relate to all production for which returns are available, but as they represent in some cases spot values, in others values at the sea-ports, they cannot serve for comparison with the production of other countries, but only for the comparison of one year with another in India itself.

	£
1910	7,700,000
1911	7,734,000
1912	8,850,000
1913	9,638,000

Coal.—Coal is the most valuable mineral product worked, and is by far the largest supporter of labour. The production during 1906–11 averaged 11,722,222 tons; in 1912 it rose to 14,706,339, and 1913 to 16,208,009 tons. The marginal table shows the territorial distribution of the output for 1912 and 1913. The areas not enumerated include the Punjab, Baluchistan, and Bikanir, in which production has hitherto been fluctuating and not very progressive. Bihar produces about 65 per cent. of the coal won in India, the Jherria coal-field (opened in 1893) providing in 1913 8,608,000 tons—over half the total output, the Raniganj 5,328,000 tons, and the Giridih 807,000 tons.

—	1912.	1913.
	000 tons.	000 tons.
Bengal	4,306	4,650
Bihar and Orissa	9,126	10,228
Hyderabad	482	552
Central Provinces	234	236
Assam	297	271
Central India	150	149
Other places	111	122
Total	14,706	16,208

The exports of Indian coal, 757,486 tons, were 139,708 tons less than those of 1912. Ceylon, the Straits Settlements, and Sumatra are the principal markets. Thus the amount of the increased production absorbed in India must have been over 1½ million tons, to which may be added an increased import of 84,000 tons. This points to a considerable expansion of industry.

The price at the pit's mouth in 1912 (the last year for which figures are available) was 4*s.* 6*d.* per ton. The coal now being worked is near the surface, and labour is cheap; as a consequence Indian coal has a lower value at the pit's mouth than that of any other country.

The average number of persons daily employed in coal mines during 1913 rose from 121,392 to 133,042. As a result of improved mining methods, the output per head has grown from 89 tons in 1904 to 116 tons in 1913, but even this is a somewhat low degree of efficiency if tested by European standards. The labourers include chiefly landless day labourers. In some old established centres a mining caste is being evolved, and allotments of land are made to miners.

Gold.—The production of gold amounted to 595,761 ounces, valued at £2,291,916, compared with 590,555 ounces, valued at £2,271,806, in 1912. By far the greatest part of the gold (559,198 ounces) came from the Mysore gold-fields. The only gold produced in British India is from the Ananatpur district, Madras.

Petroleum.—The amount in 1913 reached the record figure of 278 million gallons, valued at £1,034,586. Since the introduction of European drills the production of petroleum in Burma has rapidly risen. The deeper sands which have recently been tapped at Yenangyaung have led to a considerable increase of the production of this field which, in 1911, had shown a falling off. In 1913 this increase was maintained, despite a falling off in the average production per well, by increased activity and the introduction of improved methods. The Myingyan fields also showed a considerably increased output.

The petroliferous areas in the Punjab and N.W. Frontier Province were investigated during 1913: the results were not encouraging.

Manganese.—Manganese ore is now chiefly obtained from extensive deposits in the Central Provinces, Madras, Bihar, Mysore, and Bombay. There was a considerable rise in the amount produced (*see* table in margin), and the value increased from £884,000 to £1,211,034. This is the highest figure reached since 1907, when the Russian output fell away owing to the war with Japan. The ores worked are for the most part exceedingly rich, as the high cost of transport renders the working of the lower-grade ores unprofitable for export, though they might profitably be worked if a steel industry existed in India. There is no smelting plant in the chief producing centres, and the ore is shipped in bulk exactly as mined, to be smelted in the United Kingdom, Germany, or the United States.

	1912.	1913.
	Tons.	Tons.
Central Provinces	414,542	649,307
Madras - -	117,246	96,296
Bombay - -	43,538	40,914
Mysore - -	29,293	10,501
Bihar and Orissa -	27,173	11,215
Central India -	5,652	6,814
Total -	637,444	815,047

Salt.—The production of salt in India (excluding Aden) in 1913 was 1,299,282 tons, as compared with 1,311,015 tons in 1912. An account of salt production in India is given on pages 31 to 33.

Saltpetre.—14,462 tons were produced as against 14,798 in 1912, chiefly in Bihar, the United Provinces, and the Punjab.

Mica.—India has for many years been the leading producer of mica, turning out more than half the world's supply. The output returns for mica are unreliable, but the amount exported (62,474 cwts. in 1913) shows a rapid and continuous increase. The mines are chiefly situated in Bihar and Madras.

Tungsten.—The wolfram deposits of Burma have been considerably developed of late, and the district of Tavoy is now the largest producer of wolfram in the world. The output in 1913 was 1,688 tons (value £127,763) as against 1,671 tons (value £115,200) in 1912.

Rubies.—The output of the Burma Ruby Mines Company was 278,706 carats, valued at £55,542, as against 323,245 carats, valued at £69,547 in 1912. The figures include small quantities of sapphire and spinel.

Other Minerals.—These include iron-ore (the production of which rose from 366,000 to 580,000 tons in 1912, the latest year for which full figures are available, owing to the activity of the recently-started Tata Iron and Steel Company), lead, chromite, tin-ore, and monazite, the working of which is being rapidly developed in Travancore.

Mining Concessions.

Since Rules were issued in 1899 to govern the grant of exploring and prospecting licences and of mining leases, the number of concessions in lands in which the mineral rights have been retained by Government (exclusive of Native States) has rapidly increased. The concessions granted in Government lands fell, however, in 1913 from 622 to 495 (383 prospecting and 53 exploring licences and 59 mining leases), chiefly owing to the diminution of the rush for wolfram in Tenasserim, and to fewer

manganese applications in the Central Provinces. In some areas, including nearly all the coal-bearing land in Bengal, mineral rights have been conceded permanently with the surface ownership.

Under revised Rules which were issued in 1913, the "Exploring licence" has been abolished. Prospecting licences for a limited period may be granted to persons holding certificates of approval from the local Government. Such licences carry a right to a mining-lease, or, in the case of precious stones, to the first offer of a mining lease that the Government of India may think fit to make. The area let to a single lessee is limited. Rights in respect of petroleum and of certain metals of importance in the manufacture of armaments may be granted only to British subjects.

In practically all Native States the mineral rights belong to the respective rulers, and concessions are granted for mining and prospecting under rules that involve a certain amount of supervision by the Government of India.

Inspection of Mines.

The Indian Mines Act, 1901, applies to the whole of British India, and regulates all mineral workings which are either true mines worked underground, or open pits, quarries, or excavations more than 20 feet deep or any part of which extends beneath the superjacent ground.

The number of mines of all kinds coming under the Act in 1913 was 1,426, of which 602 were coal mines, including 365 in Bihar and Orissa, 632 mica mines, including 547 in Bihar and Orissa, and 60 manganese mines. The mines gave employment to an average daily number of 181,260 persons (as against 164,302 in 1912), of whom 111,946 were men, 62,961 women, and 6,353 children; 116,492 worked underground. The labour material is very unformed, possesses little skill, and requires constant supervision.

There were 136 fatal accidents, causing 211 deaths, during the year 1913, an increase of 26 in the deaths as compared with 1912. Of the deaths from accidents, 185 occurred in coal mines. Sixty of the accidents are ascribed to misadventure, 28 to the fault of the management, and the rest to the fault of the workmen or subordinate officials. The death-rate per thousand employed in coal mines rose from 1·32 (average of previous four years) to 1·39. Supervision is very much better than it used to be. There is, however, still room for improvement in this direction.

Twenty-two prosecutions were instituted in 1913, resulting in the conviction of 17 persons.

Mining Education, &c.

Progress in mining education is being maintained, and the need for it is still urgent. The number of students taking the Mining Course at Sibpur College at the beginning of the session 1913–14 was 16. In the 1913 examination two gained diplomas. A proposal is on foot to move the Mining Department of Sibpur College to Dhanbaid, close to the Jherria coal-field. Lectures were delivered at five centres in the Bengal coal-fields under lecturers appointed by the Mining Educational Advisory Board. There were 360 registered students and, in June 1913, 17 qualified for certificates. The Mining and Geological Institute of India, which was inaugurated at the end of 1905, now has 308 members.

CHAPTER IX.

MANUFACTURES.

INTRODUCTORY.
GOVERNMENT AND INDUSTRIAL DEVELOPMENT.
LARGE INDUSTRIES.
FACTORY LEGISLATION.
FACTORY INSPECTION.
PATENTS AND DESIGNS.

(*For further details see Statistical Abstract for British India, Tables* 218 *to* 221.)

Introductory.

Although there is, as yet, practically no factory population in India such as exists in European countries, consisting of persons trained from their youth to one particular class of work and dependent on that for their livelihood, the advance of organised industries is profoundly affecting the condition of a large part of the population for whom factories offer an alternative employment to agriculture. In parts of Bombay it is reported that, owing to the demand for labour in the cotton mills, wages are no longer determined by agricultural conditions.

Government and Industrial Development.

In recent years there has been much discussion in India regarding the advantages of encouraging manufactures for the purpose of securing greater diversity of occupation in a country that so largely depends on agriculture. The movement for promoting home industries, known as the *swadeshi* movement, has, in its legitimate forms, received official support. There are standing orders that stores required by Government shall, as far as practicable, be purchased in India, and preference is given to articles manufactured in India from Indian materials (or from imported materials), provided that the quality is sufficiently good and the price not unfavourable. Measures have been taken to restore and develop technical trades and industries; surveys of industrial conditions in almost all the major provinces have been published, besides various monographs on particular industries. Scholarships for the higher commercial and technical training of Indians abroad are offered by the Government and by private associations. In Madras, the United Provinces and Bengal the Directorship of Industries is a separate appointment. In Madras a leather expert has been appointed to superintend a leather-trade school; there is also a Dyeing school. In the United Provinces aid to the amount of £1,504 was given by Government to eight weaving-schools which trained 175 persons during 1913–14; there is also a sugar-engineering expert. In Bengal the silk industry has received special attention; the weaving school at Bankura has been made a permanent institution, and weaving classes are gaining in popularity, and a scheme has recently been started for the revival of cottage industries in the Central Provinces, especially weaving, tanning, and shoemaking.

Industrial conferences are held, some convened by the Local Governments, and others non-officially, such as the annual Indian Industrial Conference.

Large Industries.

In this chapter attention must be mainly confined to the larger industries, concerning which alone statistical information is available. By far the most important of these are the cotton and jute manufacturing industries, which have made rapid progress in recent years, as the following figures show:—

(Large Industries.)

Year.	Cotton Mills.*				Jute Mills.			
	No.	Paid-up Capital.	Looms.	Spindles.	No.	Paid-up Capital.	Looms.	Spindles.
		£				£		
1883–4 -	71	5,428,000	15,412	1,842,184	23	2,124,000	6,139	112,650
1888–9 -	98	6,166,000	19,288	2,504,666	25	2,599,000	7,419	151,207
1893–4 -	125	7,504,000	26,876	3,338,229	27	2,701,000	9,180	191,228
1898–9 -	158	10,070,000	34,775	4,261,520	33	3,821,000	13,421	279,482
1903–4 -	187	10,428,000	41,997	4,900,106	38	4,954,000	18,400	376,718
1908–9 -	212	12,604,000	69,791	5,623,542	56	7,413,000	29,525	607,458
1909–10 -	223	12,725,000	74,757	5,780,124	60	7,674,000	31,418	645,862
1910–11 -	230	13,437,000	78,984	5,961,950	58	7,667,000	33,169	682,527
1911–12 -	234	13,799,000	81,899	6,040,760	59	7,953,000	32,027	677,519
1912–13 -	241	14,045,000	85,676	6,100,632	61	7,977,000	34,033	708,716

* The figures in this table relate to British India only (Native States and Pondicherry being excluded).

Cotton Mills.—The 266 cotton mills at work in all India in 1912-13 included 104 exclusively spinning, and 21 exclusively weaving mills. The majority of the mills, viz., 176, were in the Bombay Presidency, and they contained 70 per cent. of the spindles and 77 per cent. of the looms. Bombay City contained 85 mills and Ahmedabad 59. The industry is to a large extent in the hands of Indians.

The outturn of yarn in recent years in British India is shown in the margin. The mills of the Bombay Presidency produced nearly 75 per cent. of the total; Madras, the United Provinces, Bengal, and the Central Provinces, each between 5 and 7 per cent. Yarns of counts above 25 are spun chiefly in Bombay and Madras. Imports of yarn amount to only about 7 per cent. of the Indian production, of which a very small proportion is of counts under 25. The remarkable activity of the cotton industry in 1905–6 was followed by a decline in prosperity during 1906–7. Revival of the demand from China—the principal market for Indian yarn—during 1908–9 and 1909–10 was more than counteracted by the unprecedented rise in the price of raw material, and the total output continued to decrease until 1911–12. In that year, however, there was a revival, but this was not maintained in 1913–14 owing to famine in the United Provinces and the Bank failures of the autumn.

Year.	Counts Nos. 1 to 25.	Above No. 25.	Total.
Average :	Million Lbs.	Million Lbs.	Million Lbs.
1896–7 to 1900–1 -	423·9	20·1	444·0
1901–2 to 1905–6 -	537·4	39·9	577·3
1906–7 to 1910–11 -	555·4	53·6	608·9
Year 1911–12 -	531·7	59·2	590·8
„ 1912–13 -	589·1	61·5	650·6

Owing to the vicissitudes of the spinning business increased attention has been devoted to weaving, which has greatly extended, the figures showing an almost continuous increase, until 1913–14, when the above-mentioned adverse conditions caused a contraction in the output. The production of woven goods in recent years in British India only is given in the margin. Weaving is concentrated to an even greater degree than spinning in the Bombay mills, which in 1912–13 produced about 87 per cent. of the total output of cloth; the Central Provinces, the United Provinces and Madras, each between 3 and 4½ per cent. As the marginal table shows, there is a decided tendency to increase the output of other and finer fabrics than grey and bleached goods; in Madras the greater part of the output is of the finer kind. About 7 per cent. of the cotton piece-goods produced was exported.

Year.	Grey.	Other kinds.	Total.
Average :	Million Lbs.	Million Lbs.	Million Lbs.
1896–7 to 1900–1 -	80·6	11·3	91·9
1901–2 to 1905–6 -	109·9	25·0	134·9
1906–7 to 1910–11 -	154·1	40·0	194·1
Year 1911–12 -	193·0	59·1	252·1
„ 1912–13 -	196·1	71·5	267·6

Jute Mills.—While the cotton mills are largely owned by Indians and are mainly situated in Western India, jute mills are nearly all concentrated in Bengal in the vicinity of Calcutta, and are mostly in the hands of British firms. As will be seen from the statistical table above, the jute industry is of smaller dimensions than the cotton industry, but it has enjoyed almost uninterrupted and increasingly rapid progress, the number of looms and spindles having nearly doubled in the last decade. The production of the mills (as seen by the increase in exports) has increased even faster than the number of looms and spindles. The number of persons employed in 1912–13 was 204,092. The paid-up capital employed by these mills, including debentures, was £9,972,000, of which about 3 millions represent sterling capital. In 1913–14 the prosperity of the jute trade continued to increase.

Woollen Mills.—There were six woollen mills at work at the end of 1913, containing 1,084 looms and 38,943 spindles, and producing goods valued at about £374,000 for the year. The growth of the industry is slow, but, since 1907, has been regular. The fabrics consist chiefly of cloth for the army and the police. The produce of Indian mills represents only a small share of the total trade in woollen goods, for, although the demand for woollen goods in India is not very large, certain varieties can be produced much more easily and cheaply by European mills. There are many small hand-loom factories for weaving carpets and rugs, whose production is in the aggregate extensive.

Paper Mills.—There were seven paper mills at work at the end of 1913, producing during the year about 60 million lbs. of paper, valued at £535,800. Most of the official foolscap, blotting paper, notepaper, and envelopes is now obtained locally; but the development of paper-making in India has been checked by the competition of cheap wood-pulp paper from Europe.

Breweries.—At the end of 1913 there were 21 breweries, which produced during the year 3,654,000 gallons of beer. Eight of these are in the Himalayas. The largest brewery is at Murree, and its output was 528,000 gallons. The quantity of beer imported in 1913–14 was 4,626,000 gallons.

General Remarks.—The total number of factories returned as registered under the Act in 1913 was 2,888, including factories belonging to the State and to local bodies. Of the 1,317 factories for the ginning, cleaning, and pressing of cotton there were 453 in the Central Provinces and Berar, 428 in Bombay, 170 in the Punjab, and 131 in the United Provinces. In Bombay about 211,000 operatives were employed in different branches of the cotton industry. In Madras and the Central Provinces and Berar, as in Bombay, cotton weaving and spinning are the principal industries. In Bengal there is an increasing number of jute presses. Silk filatures are found chiefly in Bengal and indigo and lac factories in Bihar and Orissa. Flour mills are most numerous in the Punjab and sugar factories in the United Provinces and Bihar. Rice mills and saw mills are most numerous in Burma, rice and teak being the two principal products of the province. They are mainly in European hands and are the only large industries in Burma organised and worked by western methods. Printing presses are numerous in Bombay, and Madras. Iron and brass foundries (including engineering workshops) number 30 in Bengal and 22 in Bombay. The Tata Iron and Steel works in Chota Nagpur commenced work early in 1912 and have since been considerably expanded. Their pig-iron has found a market in Japan and some has been bought by America. A marked feature in Madras and the United Provinces is the erection of many small power plants for purposes of agriculture and rural industries.

Factory Legislation.

Act XII., of 1911, which came into force on 1st July 1912, regulates the working of factories in India. It extends to all factories employing 50 hands and upwards in any part of the year, and may by order of any Provincial Government be extended to factories employing 20 hands and upwards. With the exception of Burma no Provincial Government has extended the law to the smaller factories, in fact the inspecting establishment has difficulty in dealing thoroughly with the larger factories. The minimum age of employment for children is 9 and the maximum 14. Every child before employment has to obtain a certificate of age and physical fitness from a surgeon appointed by Government. The hours of daily employment for children are limited to 7, and to 6 in all textile factories; those of women to 11. In textile factories

(Factory Legislation.)

the daily working hours are restricted to 12, whilst in all factories a cessation of work is compulsory for a period of not less than half an hour at intervals not exceeding six hours. No women or children may be employed after 7 p.m. or before 5.30 a.m. except in factories, for which a system of shifts has been approved. The requirements as to the grading of machinery are somewhat more strict than in the United Kingdom owing to the fact that the operatives are in many cases persons not habituated to the use of machinery.

The staff of factory inspectors has been recently increased and numbered 14 in 1914 (of whom five were in the Bombay Presidency). A separate staff is appointed for the inspection of steam boilers.

Factory Inspection.

The statistics of the factories during 1913 are as follows :—

	No. of Factories working and liable to be inspected.	Average No. of Hands employed daily.		No. of Persons convicted of breach of Act.	No. of Accidents reported.
		Children.	Adults.		
Bengal	347	28,485	313,335	16	1,181
Bihar and Orissa	34	662	28,912	—	406
Assam	15	193	2,629	—	9
United Provinces	215	1,864	55,818	30	342
Delhi	12	3	957	—	13
Punjab	224	792	30,917	3	231
North West Frontier	5	—	—	—	—
Burma	424	1,079	61,987	1	375
Central Provinces	177	2,103	24,161	20	141
Berar	310	451	22,127	3	31
Madras	365	6,000	72,764	12	398
Bombay	743	14,219	251,756	32	1,596
Ajmere-Merwara	17	349	13,537	—	108
Total	2,888	56,200*	878,900*	117*	4,831*

* Figures for North West Frontier Province not available.

The number of factories brought under the Act increased in 1913 by 178. The new factories are chiefly rice-mills in Madras and cotton-presses and ginning-factories in Bombay. In Madras decorticators for shelling ground-nuts have been erected in some numbers in cotton-ginning factories. Difficulty is being experienced in recruiting sufficient skilled labour for the jute-mills in Calcutta and the neighbourhood and for the cotton-mills in Bombay. In Bengal several jute-mills have built improved accommodation near or on their premises for their mill hands, and in Bombay the Improvement Trust is co-operating with the mill-owners in the same direction.

In Bombay cotton-mills the rates for piece-work have been increased to compensate the workers for the reduction in the hours of labour involved by the introduction of the new Act. In the Punjab the newly-appointed inspector has been busy in dealing with a large number of irregularities discovered in the ginning-factories of that Province.

Most of the accidents reported were not serious and many were not due to contact with machinery.

Patents and Designs.

In view of the growing volume of patent work a new Patent and Designs Act, assimilating the Indian law more closely to that of the United Kingdom, was passed in March 1911, and came into force in January 1912. As compared with the Act previously in force (Act V. of 1888) it provides a simpler, more direct, and more effective procedure in regard to the grant of patents and to their subsequent existence and operation, and reduces the fee for the registration of designs. It encourages the inventor, while giving better protection to him and to the public.

(Patents and Designs.)

The subjects of the patents applied for in 1912 were chiefly chemical appliances and preparations, railways, electric contrivances, bicycles, spinning and weaving machines, and building materials.

The following are the principal statistics for patents for the latest years available :—

	Total Number of Applications		Number of Applications from		
	Received.	Accepted.	Indians.	Other residents in India.	Persons not resident in India.
1911 - - -	807	528	64	142	601
1912 - - -	678	437	50	120	508

There were 333 designs registered as against 77 in 1911.

(Foreign Seaborne Trade.)

CHAPTER X.

TRADE.

(Detailed information regarding the Trade of British India is annually furnished in three Parliamentary Bluebooks; Tables of the Trade of British India, Review of the Trade of India, and Statistical Abstract for British India, Tables 136 *to* 184.)

Foreign Seaborne Trade.

This section deals only with the trade of British Indian ports, and excludes the trade of certain native States on the west coast, the trade of French and Portuguese possessions, and the contents of registered letters.

The foreign seaborne trade of India has greatly increased during the last 30 years, as the marginal figures relating to private merchandise show (values in thousands of pounds at 15 rupees to the pound): The percentage growth has been greater in imports, though the actual increase has been larger in exports.

Year.	Imports.	Exports of Indian Merchandise.
Average—	000£	000£
1880–1 to 1884–5	33,754	52,964
1885–6 „ 1889–90	40,798	59,168
1890–1 „ 1894–5	45,647	67,623
1895–6 „ 1899–1900	46,956	69,100
1900–1 „ 1904–5	55,745	87,336
1905–6 „ 1909–10	77,281	111,874
For the year 1910–11	86;236	137,081
„ 1911–12	92,383	147,879
„ 1912–13	107,332	160,899
„ 1913–14	122,165	162,800

The foreign seaborne trade of British India during the five years to 31st March 1914 was as follows :—

	1909–10.	1910–11.	1911–12.	1912–13.	1913–14.
Imports :	£	£	£	£	£
Private Merchandise	78,040,286	86,236,011	92,383,255	107,332,470	122,165,288
Government Stores	3,727,226	2,901,152	3,653,703	3,753,985	5,373,350
Total Merchandise	81,767,512	89,137,163	96,036,958	111,086,455	127,538,638
Treasure, Private	24,950,716	26,444,723	35,614,729	34,132,002	24,413,630
„ Government	64,933	45,853	32.503	7,089,166	4,546,136
Total Treasure	25,015,649	26,490,576	35,647,232	41,221,168	28,959,766
Total Imports	106,783,161	115,627,739	131,684,190	152,307,623	156,498,404
Exports :					
Private Merchandise :					
Foreign Produce and Manufactures	2,259,090	2,840,700	4,018,100	3,160,044	3,118,219
Indian ditto	122,997,605	137,080,646	147,879,063	160,899,289	162,800,999
Government Stores	55,428	53,056	96,041	86,221	85,775
Total Merchandise	125,312,123	139,974,402	151,993,204	164,145,554	166,004,993
Treasure, Private	4,262,221	4,745,327	6,907,746	4,697,193	4,701,390
„ Government	3,807	5,956	8,191	2,390,651	20,533
Total Treasure	4,266,028	4,751,283	6,915,987	7,087,844	4,721,923
Total Exports	129,578,151	144,725,685	158,909,191	171,233,398	170,726,916
Total Seaborne Trade	236,361,312	260,353,424	290,593,381	323,541,021	327,225,320
Net Exports of Merchandise	43,544,611	50,837,239	55,956,246	53,059,099	38,466,355
Net Imports of Treasure	20,749,621	21,739,293	28,731,245	34,133,324	24,237,843
Net excess of Exports (balance of trade)	22,794,990	29,097,946	27,225,001	18,925,775	14,228,512

The failure of the monsoon, the banking crisis in the autumn of 1913, and a glut in the piece-goods market were all adverse to Indian trade, which, however, continued to expand, though not so rapidly as in previous recent years.

(Foreign Seaborne Trade.)

Principal Imports and Exports.—The following table shows the values of the chief articles of merchandise imported and exported during the last three years :—

Principal Imports.				Principal Exports (Indian Merchandise)			
Articles.	1911–12.	1912–13.	1913–14.	Articles.	1911–12.	1912–13.	1913–14.
	000£	000£	000£		000£	000£	000£
Cotton goods (including twist and yarn).	33,047	40,548	44,200	Cotton, raw - -	19,684	18,890	27,362
Metals - - -	9,473	10,328	14,683	Rice - - -	19,366	21,704	17,738
Sugar - - - -	7,960	9,519	9,971	Jute, raw - -	15,038	18,034	20,551
Railway material - -	2,958	4,269	6,690	„ manufactures -	10,672	15,247	18,849
Machinery and millwork	3,041	3,611	5,172	Seeds - - -	18,720	15,140	17,117
Mineral oils - -	2,818	2,502	2,744	Wheat and wheat-flour	9,430	12,514	9,590
Hardware - - -	2,084	2,279	2,632	Hides and skins -	9,286	10,914	10,632
Woollen goods - -	2,272	2,039	2,568	Tea - - -	8,631	8,863	9,983
Silk manufactures -	1,769	2,035	2,068	Opium - - -	8,726	7,481	2,280
Provisions - - -	1,292	1,566	1,649	Cotton manufactures -	6,519	8,134	8,080
Raw cotton - -	1,391	1,483	182	Barley - - -	1,498	3,705	1,044
Liquors - - -	1,293	1,422	1,491	Wool, raw - -	1,724	1,756	1,670
Glass and glassware -	1,029	1,169	1,297	Metals and ores -	1,050	1,479	1,463
Spices - - -	1,029	1,087	1,155	Lac - - -	1,343	1,409	1,311
Apparel - - -	1,027	1,074	1,140	Pulse - - -	1,346	1,119	711
				Coffee - - -	897	1,044	1,024

Imports of Merchandise.—These show an increase under all the most important heads except raw cotton—a proof of the increasing purchasing power of the people. It may be remarked that the principal articles of import are not the prime necessities of life (unless cotton is so regarded), but either conventional necessities, luxuries, or articles like machinery calculated to enhance the efficiency of production. The enormous increase of late years in the imports of cotton goods has been partly owing to a growing demand, but also to over-production in England, and resulted in a glut in the piece-goods market in the autumn of 1913. The increased import of implements (agricultural and other), machinery (especially textile machinery), and metals all point to the increasing activity of Indian industries. The curtailment of hours under the recent Factory Act is said to be stimulating the use of more efficient machinery in textile mills. Imports of railway material, if we include imports by Government, show an increase of nearly £3½ millions.

Exports of Indian Merchandise.—The table brings out clearly the immense preponderance of raw agricultural produce amongst Indian exports, and the figures fluctuate widely according to the character of the season. Food grains as a whole fell off. The unfavourable season of 1912–13 caused a large contraction of rice exports, which was further enhanced by a falling off in the demand from the Far East. The wheat exports also fell off owing to an unfavourable season, and the recent remarkable development in the export of secondary grains (barley and others) was not maintained. Cotton and jute, however, expanded remarkably, and raw cotton exports constituted a record, prices being high and the crop abundant. Raw jute exports fell off in quantity, but fetched record prices. The exports of manufactured jute expanded and good profits were made. Seed exports were a record as regards quantity, but, owing to heavy crops in other parts of the world, prices declined. Tea exports again constituted a record.

Further details with regard to the trade in some of the principal agricultural products are given in Chapter V.

Re-Exports.—The value of foreign merchandise re-exported from India is relatively small, and the trade is not progressive. Of the total in 1913–14, £1,040,000 worth of cotton goods, shipped chiefly to the Persian Gulf, Arabia, East Africa, &c., formed about a third.

Trade by Countries.—In the following table imports are classified according to the countries whence they were consigned to India, and exports to the countries to which they were consigned, *i.e.*, to the countries of final destination so far as known. This system was introduced in 1907–08, before which year they used to be shown according

to the countries containing the port of shipment or discharge. The chief result of the change is that a large mass of imports previously shown as coming from Belgium is now correctly shown as coming from Germany.

The share of the United Kingdom in the total trade of 1913–14 in private merchandise was 40·7 per cent.; that of Germany was 9; of China, 3·7; of France, 4·8; of the United States 6·2; of Belgium, 3·8; of Japan, 6·4. Taking imports and exports separately, about 64 per cent. of the import trade (exclusive of Government stores) and 24 per cent. of the export trade was conducted with the United Kingdom. In consequence, however, of the re-exports of Indian produce, the proportion retained in England is considerably lower. The proportion of the trade assignable to other parts of the British Empire cannot be stated accurately, since the large transactions with Ceylon, the Straits Settlements, and Hong Kong, which are chiefly distributing centres, are really for the most part trade with foreign countries. As regards the self-governing Dominions, the largest trade was done with Australia (£3,343,000).

The value of India's trade in private merchandise with the chief countries, for the last three years, has been as follows (in thousands of pounds):—

Countries.	Imports from			Exports to		
	1911–12.	1912–13.	1913–14.	1911–12.	1912–13.	1913–14.
	000£	000£	000£	000£	000£	000£
United Kingdom - -	57,635	67,628	78,388	40,055	41,226	38,901
Germany - - - -	5,969	6,869	8,444	15,106	16,622	17,613
China(including Hong Kong)	1,643	2,011	1,792	12,240	13,684	9,024
United States - - -	3,527	3,469	3,194	10,445	12,586	14,567
Belgium - - - -	1,542	2,029	2,839	8,905	8,778	8,064
France - - - -	1,427	1,453	1,794	9,176	10,524	11,813
Japan - - - -	2,318	2,711	3,187	11,163	12,489	15,130
Straits Settlements - -	1,985	2,057	2,282	5,857	6,129	4,523
Austria-Hungary - -	1,771	2,352	2,860	5,076	4,856	6,673
Ceylon - - - -	461	504	539	5,695	6,119	6,027
Italy - - - -	839	1,048	1,464	4,225	4,629	5,262
Mauritius - - -	1,277	2,159	1,685	973	925	862
Turkey - - - -	416	380	385	1,724	1,695	2,030
Java - - - -	6,314	6,359	7,163	2,851	2,168	1,297

The trade with China consists mainly in the exportation thereto of cotton yarn, raw cotton, tea, and jute goods, while silk and silk goods are imported. Germany sends chiefly cotton goods, woollen goods, steel, iron, copper and other metals, hardware, dyes, machinery, oils, glassware, paper, &c. in exchange for raw cotton and jute, raw hides and skins, rice, oilseeds, &c. She buys over twice as much as she sells to India. Belgium takes raw cotton, oilseeds, manures, manganese ore, jute, wheat, &c. in exchange for iron, steel, dyes, glass and china, cotton goods, &c. France buys large quantities of raw jute and cotton, wheat, coffee, hides and skins, and oilseeds, and sells apparel, silk and woollen goods and liquors. The United States buys large quantities of hides and skins, jute, lac, seeds, and manganese ore, and sells mineral oil, hardware, machinery, cotton goods, and iron and steel.

Trade of Chief Ports.—The table in the margin shows the proportionate share of the five chief ports in the private trade with foreign countries in merchandise only. The value of the exports from Calcutta was greater through increases under jute and hides. Opium, food-grains, and oilseeds declined. Imports increased under all the important heads, particularly cotton goods, metals and machinery, especially jute machinery. Imports into Bombay increased under all the chief heads, except raw cotton (which, during the two previous years, had been imported in abnormal quantities). Exports generally showed an advance, except opium. In Karachi an increase in imports (especially cotton manufactures, sugar, and machinery) was more than counterbalanced by a decrease in exports (especially wheat and barley).

Port.	1912–13.	1913–14.
	Per Cent.	Per Cent.
Calcutta -	38·3	39·0
Bombay -	28·4	30·5
Karachi -	11·7	9·9
Rangoon -	8·9	7·6
Madras -	4·4	4·9

Treasure.—The net import of gold fell from £22,668,000 in 1912–13 to £15,549,000, that of silver from £11,466,000 to £8,689,000; the fall being chiefly due to smaller requirements for coinage. The apparent absorption of gold by India has increased largely in the last two years.

Land Frontier Trade.

The statistics of land frontier trade shown in the margin include a great deal of trade that is not strictly foreign. Owing to difficulties of registration accurate returns are impossible, but there is a considerable trade with Afghanistan, Nepal, Western China, Tibet, Bhutan, and Siam. The principal exports from India are cotton yarn and manufactures (chiefly foreign), metals, and provisions; and the chief imports into India rice and other grains, provisions, fruits, living animals, wool, hides and skins, oilseeds, and timber.

Year.	Imports.	Exports.	Total.
	000£	000£	000£
1911–12	6,920	5,885	12,805
1912–13	7,660	6,986	14,646
1913–14	8,013	6,280	14,293

Coasting Trade.

The trade in merchandise carried by coasting vessels amounted to £45,627,000 in 1913–14, or about 8 per cent. more than in 1912–13. This amount is arrived at by adding to the value of the goods carried from one British Indian port to another the sum of the imports and exports in the trade between British and non-British ports in India. The increase in 1913–14 is due to large shipments of rice from Burma to Calcutta in view of the partial crop failures in Upper India. The trade is handicapped by the high rate of coasting freights.

Shipping.

During 1913–14 the number of steamers and sailing vessels with cargoes and in ballast which entered from and cleared to all countries was 8,617, with a tonnage of 17,386,408 as compared with 17,484,391 in 1912–13. Of the total, 99 per cent. was steam tonnage. Tonnage under the British flag represented about 75 per cent. of the whole. The number of vessels under the principal flags is given below :—

Nationality.	1909–10.	1910–11.	1911–12.	1912–13.	1913–14.
British	4,722	4,751	5,117	5,129	4,951
German	455	419	472	509	559
Austro-Hungarian	220	208	213	245	285
Japanese	63	77	121	198	191
Norwegian	95	104	134	131	80
Italian	81	84	83	90	73
French	56	56	58	47	60

Freights.

The following statement gives minimum quotations for typical rates of freight per ton from the chief Indian ports to London for each of the last five years, taking in each case the month when the largest quantity of the commodity is ordinarily shipped :—

——	1910.	1911.	1912.	1913.	1914.*
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Calcutta—Rice	1 0 0	0 18 9	1 6 3	1 12 6	1 1 3
Wheat	1 1 3	1 0 0	1 10 0	1 6 3	1 1 3
Linseed	1 0 0	1 2 6	1 12 6	1 6 3	1 2 11
Tea	1 12 6	1 12 6	1 15 0	—	1 15 0
Jute	1 6 3	1 12 6	1 17 6	—	1 3 9
Bombay—Cotton	0 16 6	0 15 0	1 0 0	1 0 0	– 14 0
Wheat	0 14 6	0 15 6	0 19 0	1 0 6	– 13 5
Seeds	0 15 0	0 16 0	1 2 0	—	– 14 4
Karachi—Wheat	0 14 6	0 17 0	1 1 0	0 18 6	– 12 8
Rangoon—Rice	—	1 3 6	1 12 6	1 5 0	—

* Average for first three months of the year.

(Merchandise Marks Act.)

Working of the Merchandise Marks Act.

(*For further details, see Statistical Abstract for British India, Table* 185.)

The Indian Merchandise Marks Act (IV. of 1889) was passed to prevent the fraudulent sale of goods bearing false trade marks or false trade descriptions (as of origin, quality, weight, or quantity). The Act also requires that all piece-goods must be stamped so as to show the length of each piece in yards. Altogether 2,800 consignments were detained under the Act in 1913–14; 52 of these were cases of counterfeit trade marks, 1,861 of false trade description as to origin of manufacture, 502 of other false trade descriptions, and 385 of incorrect or deficient stamping of length of piece goods. The goods were released with fine in 1,635 cases, and without fine after compliance with Custom House orders in 1,160 cases.

Joint Stock Companies.

(*For further details, see Statistical Abstract for British India Tables* 216, 217.)

At the beginning of 1913–14 there were 2,499 joint stock companies at work in British India with a paid-up capital of £47,797,424. The increase during the year was, in number, 89; and, in capital, £1,773,000. The paid-up capital has doubled since 1900–01. The companies are most numerous and important in the provinces of Bengal and Bombay, which each possess 38 per cent. of all the paid-up capital, while the share of Burma, which comes next, was 8 per cent. of the whole. The average of paid-up capital is highest in Burma, where it amounts to £31,200, while in Bombay it is £30,900. In Madras the average is low, as 232 money-lenders, mostly carrying on a small business, are registered under the Companies Act. The distribution of paid-up* capital among registered companies of the different classes was as follows :—

	£		£
Banking loan and insurance	5,742,289	Mills and presses -	- 18,375,488
Trading and shipping -	11,139,986	Tea and planting -	- 2,813,146
Mining and quarrying -	7,676,131	Other industries -	- 2,050,384

As will be seen, the largest aggregate paid-up capital, constituting nearly two-fifths of the total, was invested in cotton, jute, and other mills and presses; and about 50 per cent. of the capital of such undertakings was invested (mostly in cotton mills and presses) in Bombay Presidency. Over a third of the capital of trading companies is invested in railways and tramways. The capital invested in mining companies has quadrupled in the last eight years.

At the end of 1912 there were, so far as is known, 350 companies which carried on work with sterling capital exclusively, or almost exclusively, in British India, but which were registered elsewhere, and their paid-up capital amounted to £73,503,468, besides £43,484,448 debentures. The railways and tramways represented £34,175,825 paid-up capital and £37,468,351 debentures. Of the rest the sterling capital (including debentures) invested in the tea industry was about 16 million; in mines, 9 million; in jute mills, 5 million; in rice mills, 2 million; and in cotton mills, £400,000. Thus, while the railway, mining, and tea concerns are mainly financed from abroad, the great bulk of the mill and press companies are registered in India. The new Companies Act came into force 1st April 1914.

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* Share capital only. The total value of the debentures issued amounted in June 1913 to £6,305,800.

CHAPTER XI.

PUBLIC WORKS.

General.

The operations included under the head of "Public Works" are of three kinds, viz., Railways, Irrigation, and Buildings and Roads. The Railway Department is an Imperial service under the control of the Government of India, or of the Railway Board, in so far as the powers of the Government of India have been delegated to it. The establishment employed on irrigation and on buildings and roads is subdivided according to Provinces, and controlled by the local administrations, in subordination to the Supreme Government. Under the head of "Buildings and Roads" are included many miscellaneous works, such as improvements in towns (paving, water supply and drainage), harbours, lighthouses, &c.

The annual expenditure on public works is met partly from money raised by loan and partly from the ordinary revenues of the year. The class of works on which borrowed money is expended comprises the railways and large irrigation works, which are expected to yield sufficient net revenue to cover the interest on the capital expended on them. For the railways and more important irrigation systems distinct capital and revenue accounts are kept, but for the smaller works of irrigation and most of the works included in the class of buildings and roads such accounts are not kept, though a distinction is made in the accounts between expenditure on new works and expenditure on repairs to existing works.

The following statement of the total receipts and expenditure under the three heads of "Railways," "Irrigation," and "other Public Works" for 1913–14 is compiled from the Finance and Revenue Accounts :—

——	Receipts.	Expenditure.		
		——	Charged to Revenue.	Not charged to Revenue.
	£	Railways :	£	£
Railways :		Construction and other capital outlay	—	10,483,200
State Railways - -	37,546,135			
		„ - from Famine Relief Grant	8,576	—
Deduct :				
Working Expenses -	*19,572,745*	„ charged to Provincial Revenues.	1,414	—
Surplus profits paid to Companies, &c.	*440,857*	On Revenue Account - -	12,836,101	—
	17,532,533	Irrigation :		
		Construction - - -	—	1,282,262
Subsidised Companies (Government share of surplus profits, &c).	93,101	„ from Famine Relief Grant	491,424	—
		On Revenue Account - -	3,531,867	—
Total - -	17,625,634	Other Public Works :		
		Civil Works - - -	7,008,624	—
Irrigation - -	4,713,159			
		Initial expenditure on new capital at Delhi.	—	447,134
Other Public Works -	298,640			
TOTAL - -	22,637,433		23,878,006	12,212,596

The expenditure charged against revenue includes the following items of "Interest on Debt" :—Railways, £6,887,842 ; Irrigation, £1,304,846.

Of the permanent public debt on the 31st of March 1914, £221,984,419 is classed as incurred for railways and £39,440,938 for irrigation.

(General.)

The amount paid under the head of "Annuities in purchase of railways," which is included in the Railway Revenue Account is £3,379,581, of which £869,165 represents capital redeemed.

The following statement shows the strength of the superior engineer and upper subordinate establishments as they stood on the 30th June in 1913 and 1914:—

		Irrigation and Buildings and Roads.	Railways.	Total.
Civil Engineers (including Military Officers)	1913	744	183	927
	1914	755	186	941
Upper Subordinates	1913	1,155	63	1,218
	1914	1,189	61	1,250

Railways.

(*For further details see Statistical Abstract for British India, Tables* 44 *to* 47, 68–9, 71, 74 *to* 78, 126 *to* 134.)

Financial Results to the State.—In the financial year 1913–14 there was a net gain of £4,789,533. The table below is taken from the Finance and Revenue Accounts of the Government of India for 1913–14.

	India.	England. (Sterling converted at £1=Rs. 15.)	TOTAL.
REVENUE.	£	£	£
Railways—			
State railways—(Gross traffic receipts)	37,545,905	230	37,546,135
Deduct:			
Working expenses	*19,572,745*	—	*19,572,745*
Surplus profits paid to companies	*440,857*	—	*440,857*
Net receipts	17,532,303	230	17,532,533
Subsidised companies—(Government share of surplus profits and repayment of advances of interest).	16,331	76,770	93,101
Total £	17,548,634	77,000	17,625,634
EXPENDITURE.			
Railway Revenue Account—			
State Railways—			
Interest on debt	3,357,109	3,530,733	6,887,842
Annuities in purchase of railways	—	3,379,581	3,379,581
Sinking funds	—	191,707	191,707
Interest chargeable against companies on advances	239,803	175,500	415,303
Interest on capital deposited by companies	229,839	1,722,577	1,952,416
Subsidised companies—			
Land, &c.	55,146	—	55,146
Miscellaneous railway expenditure	*— 45,894*	—	*— 45,894*
Total £	3,836,003	9,000,098	12,836,101

In the figures of expenditure are included all charges falling on the Government for interest on capital outlay, as well as for the gradual redemption (by charge to the revenue account) of the commuted capital of the East Indian, Eastern Bengal, Scinde Punjab and Delhi, Great Indian Peninsula and Madras railways, through the agency of sinking funds and annuities, and of that portion of the Oudh and Rohilkund railway debt incurred in excess of the money raised through the agency of the "Discount" Sinking Fund. The figures also include charges for control, for land required by the companies, and for miscellaneous items, such as headquarters establishment and surveys.

Statistical Results of Working.—The statistical results of working the various classes of railways during 1913–14 are given in the following table. The aggregate net earnings of all Indian railways, including steamboat service and suspense items, but excluding indirect charges, produced a return of 6·19 per cent. on the total capital outlay on open lines, against 6·48 per cent. in the previous year:—

(Railways.)

Class.	Length of Line open on the 31st March 1914.	Total Capital Outlay on Open Lines to the 31st March 1914, including Steamboat and Suspense.	Total Number of Passengers carried.	Total Weight of Goods carried.	Gross Earnings, including Steamboat Service.	Working Expenses, including Steamboat Service.	Net Earnings, including Steamboat Service.	Percentage of Net Earnings on Capital Outlay on Open Lines.
All Gauges.	Miles.	£	No.	Tons.	£	£	£	
State lines worked by the State -	7,264	88,996,933	101,270,800	18,288,000	9,900,600	5,517,000	4,383,600	—
State lines worked by companies* -	18,810	204,811,867	262,544,400	51,362,000	27,772,667	14,134,134	13,638,533	—
Branch line companies' railways assisted under "rebate" terms.	1,388	5,814,200	14,927,100	1,995,000	775,800	388,400	387,400	—
Branch line companies' railways assisted under "guarantee" terms.	32	201,467	466,300	114,000	32,333	16,200	16,133	—
District Boards' lines - - -	166	494,867	4,123,400	306,000	89,400	53,200	36,200	—
Assisted companies' lines - -	2,647	12,667,333	44,999,300	5,030,000	1,621,067	722,133	898,934	—
Unassisted companies' lines - -	74	238,600	883,300	426,000	26,733	14,400	12,333	—
Lines owned by Native States and worked by companies.	1,050	3,969,533	7,818,100	629,000	384,067	204,267	179,800	—
Lines owned by Native States and worked by State railway agency.	258	1,055,133	5,285,600	1,012,000	221,600	113,733	107,867	—
Lines owned and worked by Native States.	2,172	5,040,600	9,410,900	1,729,000	740,467	364,533	375,934	—
Companies' lines guaranteed by Native States.	721	5,430,067	4,449,200	1,234,000	732,533	373,000	359,533	—
Lines in foreign territory - -	74	1,337,000	1,539,500	488,000	93,133	52,600	40,533	—
TOTAL OF ALL RAILWAYS, 1913-14	34,656	330,057,600	457,717,900	82,613,000	42,390,400	21,953,600	20,436,800	6·19
Ditto 1912-13	33,599	313,939,667	436,697,500	86,977,000	41,139,133	20,788,267	20,350,866	6·48

* The Birur-Shimoga, Hindupur, and Mysore-Nanjangud railways are included with the Mysore State railway under this classification, as separate figures for these lines are not available.

It will be observed that, with an increase of 1,057 miles, or 3·14 per cent. in the open mileage, as compared with 1912–13, the gross earnings increased by £1,251,267, or 3·04 per cent., and the working expenses by £1,165,333, or 5·61 per cent., resulting in an improvement of £85,934 in the net earnings.

Mileage opened and under construction.—The total railway mileage opened, under construction, and sanctioned for construction during the year was as follows:—

Gauge.	Miles opened.	Miles sanctioned for construction.	Total Mileage under construction or sanctioned at the close of the Year.
5′ 6″ gauge - - - -	420	294	932
3′ 3⅜″ „ - - - -	164	435	821
2′ 6″ „ - - - -	455	200	578
2′ 0″ „ - - - -	14	25	112
Total - - - -	1,053	954	2,443
Add correction of mileage -	4		
Net total addition to open mileage -	1,057		

Important Works completed and in progress.—Full particulars in regard to the works completed and in progress during 1913–14, and projects for new lines under consideration during the year, are given in the Administration Report on Indian Railways for 1913–14, published as a Parliamentary Paper. A few details of the more important works of the year are, however, given below.

Among the lines opened during the year were :—

North Western Railway, Jullundur-Hoshiarpur Branch.—This branch line traverses a rich part of the Punjab and connects with the main line at Hoshiarpur, the only district headquarter in the province not already provided with railway communication. The undertaking promises to be very remunerative.

Bayana-Agra Railway.—This line gives the Bombay, Baroda and Central India Railway access to Agra, which now has two broad-gauge routes to Bombay. It affords access to the historical town of Fatehpur Sikri.

Bengal and North Western Railway, Benares-Allahabad Branch.—This branch connects the main line with Allahabad, thus securing the connection of Allahabad with the metre-gauge railway system. It opens up a rich riverain track and is important for pilgrim traffic.

(Railways.)

Eastern Bengal Railway, Singhjani-Fulchari Extension.—This line forms a most important link completing a new line of communication between the northern section of the Eastern Bengal and Bengal and North-Western Railways on the one side and the Dacca section of the Eastern Bengal Railway on the other. The traffic has already exceeded all expectations.

Indo-Ceylon Connection.—This line of through communication between India and Ceylon, an important engineering work, will probably attract most of the steamer traffic which has hitherto passed between Tuticorin and Colombo. The new railway lines in India and Ceylon are linked up by a steam ferry service between Dhanushkodi on the Indian side and Talaimannar in Ceylon. The passage occupies two hours.

Narrow Gauge Extensions.—Of these the chief is the Trans-Indus (Kalabagh-Bannu) Railway, the export traffic on which has already become extremely heavy.

Eastern Bengal Railway.—Work on the Lower Ganges Bridge, near Sara, proceeded rapidly during the year.

Great Indian Peninsula Railway.—It is expected that the lines comprised in the Itarsi-Nagpur Railway project of 226 miles, forming part of a through north and south broad-gauge connection, will be opened to traffic about the close of 1916.

Rapid progress was made with the construction of the Bombay overhead connection, a short but important urban line.

Oude and Rohilkund Railway.—The Cawnpore-Banda railway was nearly completed.

Burma Railways.—The section of the Southern Shan States Railway between Yinmabin and Aungban was considerably advanced.

Among the lines under construction during 1913–14 may be mentioned the following :—

Bhairab Bazar-Tangi Extension of the Assam-Bengal Railway.—This forms a link with the Dacca section of the Eastern Bengal Railway.

Burdwan-Howrah Chord.—The construction of this line, which is urgently required to relieve the congestion between the coal-fields and Calcutta, was begun in September 1913.

Rolling-Stock.—Owing to the congestion of traffic on some lines there has been a demand for additional rolling-stock. Special trucks are being provided for unusually bulky loads.

Improvements in passenger accommodation have been continued, and practically all carriages are now provided with communications with the train staff. All the carriages on State-worked lines are to be fitted with electric light instead of gas. Refreshment rooms and cars for Indians have been increased in number.

Rail motors for passengers have been placed on two lines. Locomotives are being fitted with super-heaters, and experiments are being made in Western India with oil-fuel from the Persian oil-fields.

Improvement of Open Line Equipment.—Capital funds are being devoted to the provision not only of extra rolling-stock, but of stronger permanent-way, additional tracks, enlarged marshalling yards, workshops, and other works incidental to an increase in the carrying capacity of the main through routes, particularly those leading to the ports of Calcutta, Bombay, and Karachi.

Accidents.—The number of passengers killed during 1913–14 was 268, and the number injured 815. The more serious accidents included one on the Great Indian Peninsula railway, in which 33 persons were killed and 20 seriously injured, and one on the East Indian railway, in which 23 passengers were killed and 23 injured.

Of the railway servants 480 were killed and 845 injured.

Railway Staff.—The total number of railway servants at the end of 1913–14 was 633,694, including 7,988 Europeans, 10,437 Anglo-Indians, and 615,269 Indians.

Strikes.—Strikes occurred during the year on three railways, the Madras and Southern Mahratta, the Bombay, Baroda and Central India, and the Great Indian Peninsula, but were not of long duration.

Contracts.—The financial instead of the calendar year has been generally adopted for the accounts of Indian railways in order that adequate financial control over expenditure may be better ensured by eliminating the difficulties which arose from railway working expenditure estimates being regulated by calendar years while the

Government budget grants were necessarily allotted according to the Government financial years ending on 31st March.

An important agreement was made on 24th October 1913 with the Bombay, Baroda and Central India Railway Company, establishing a new basis for the working of that railway by the company. Details are given in the annual Administration Report on Railways in India for 1913–14.

New Construction financed by Private Enterprise, District Boards, and Native States.—Owing to the difficulty of providing adequate amounts for new construction from Imperial funds, private enterprise has been encouraged by the offer of what are called branch line terms, which were revised in November 1913, and now provide either for the grant of a rebate by the parent line from its net earnings from traffic brought to it by the feeder railway sufficient to make up 5 per cent. on the paid-up capital, *or* for a firm guarantee from Government of 3½ per cent. on the paid-up capital.

Feeder lines are also being financed to an increasing extent by District Boards and by Native States. All local governments in British India are now empowered to legislate for the levy by District Boards of a special railway cess not exceeding 3 pies per rupee of land revenue.

Aerial Ropeways.—Some proposals have been received for the construction of these ropeways, which are likely to find favour in mountain districts where the cost of railway construction is high.

Irrigation.

(*For further details see Statistical Abstract for British India, Tables*, 44–7, 68–9, 71, 74 *to* 76, 121, *and* 135.)

The class of works dealt with by the Public Works Department under the head of Irrigation may be roughly divided into canals and tanks, though these two kinds of works are frequently used in combination. The works under the former head take off, in most cases, from the larger rivers, which, drawing their water from lofty mountain ranges, can, even in times of drought, be depended upon for an unfailing supply. They have been utilised on the largest scale and with the most successful results in the United Provinces, the Punjab and Sind, and the deltas of the large rivers in the Madras Presidency. In tank irrigation, on the other hand, the supply of water is more or less dependent on the local rainfall, either directly or through the medium of the smaller rivers, which dry up in hot seasons. This is the common system of irrigation in Southern India, where irrigation is largely dependent on storage works. In the Madras Presidency alone there are some 60,000 tanks. These works are for the most part of native origin; but much has been done under the British Government in improving old tanks, and in constructing new works in Madras, the Bombay Deccan, Ajmere-Merwara, and the Central Provinces. In parts of Baluchistan, where the rainfall is scanty and very capricious, a method is practised of drawing the water from underground springs by means of tunnels driven into the hill sides. There remains the method of irrigation more extensively used in India than in any other country, viz., that by wells, which, however, does not come directly within the scope of operations of the Public Works Department.

Financially considered, the irrigation works are classed as "major" or "minor." The former class includes all the works which have been undertaken from loan funds, in the expectation that they would be sufficiently productive to cover the interest charges on the sums spent on their construction. It also includes the works classed as famine protective, which are constructed not from borrowed funds, but out of the annual grant from revenue for famine relief and insurance. The amount available for the construction of protective works from the grant for famine relief and insurance is now supplemented by a further grant from revenue. This supplementary grant was first made in 1911–12. The cost of constructing the "minor" works, as well as the sums annually required for their working and maintenance, are met from ordinary revenues, and for the greater part of this class of works distinct capital and revenue accounts are not kept.

Speaking generally, the "major" class includes the works of the greatest engineering importance, which have been constructed, or, as in the cases of a few old Native works, almost entirely reconstructed by British officers.

(Irrigation.)

The following statement gives a general view of results obtained from working the canals for which full accounts are kept for 1911–12, 1912–13, and 1913–14 :—

—	Capital Outlay (Direct and Indirect) to end of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area irrigated.
	£	£	£	£		Acres.
Major Works - - -	41,100,185	4,499,123	1,338,761	3,160,362	7·69	15,242,939
Minor Works - - -	4,396,422	344,676	151,774	192,902	4·39	1,716,506
Total for 1913–14 - -	45,496,607	4,843,799	1,490,535	3,353,264	7·37	16,959,445
Total for 1912–13 - -	43,442,253	4,543,262	1,449,296	3,093,966	7·12	16,490,160
Total for 1911–12 - -	41,510,000	4,116,000	1,390,000	2,725,000	6·6	17,099,000

There are great differences in the financial success of the irrigation works in the various provinces. These are due to the various physical conditions of the country in regard to surface, soil, climate, and the absence or presence of large rivers with a permanent supply of water, as well as to the differences in the character and habits of the people in different districts. There are also considerable differences in the manner in which the irrigation revenue is assessed and collected, which have an important bearing on the financial success of the works. In Madras the bulk of the irrigation revenue is collected with, and on most of the works is consolidated with, the land revenue. In Bengal and Bombay the irrigation receipts consist largely of "occupiers'" rates, and are not supplemented by "owners'" rates, as in the United Provinces, nor, with a few exceptions, by a share of the land revenue. In Sind, where nearly a quarter of the total cultivable area is dependent on the artificial supply of water, the revenue of the canals consists almost entirely of the share of the land revenue allotted to irrigation. In the United Provinces and in the Punjab, the direct water-rates are assessed partly on the occupier and partly on the owner of the land, the bulk of the rates falling on the former, and the irrigation receipts are further increased by a not unimportant contribution from the land revenue. The contribution from the land revenue is the amount considered due to irrigation when an enhancement of land revenue is levied at the periodical revision of the land settlement. Like the owners' rate, which is directly levied, it falls upon the owner of the land.

The immense systems of artificial water channels with which some parts of India are covered would appear at first sight to offer unrivalled opportunities for water carriage. But though efforts have been made to organise navigation services on some of the larger irrigation canals, it cannot be said that, on the whole, they have met with success. In many cases the traffic receipts have failed to cover the working expenses. It is, indeed, obvious that the canals, being designed primarily for irrigation purposes, must often be unsuitable from their alignment and level for navigation.

The following more detailed account of the irrigation operations of the year is given under the heads of the different provinces in which the works are situated. Each account opens with a statement showing the general results for 1913–14 of working all the irrigation and navigation systems *for which full accounts are kept* as compared with the results of the previous year.

Bengal :—

—	Capital Outlay to end of Year.	Gross Receipts.	Expenditure.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area irrigated.
	£	£	£	£		Acres.
Major works - - -	740,574	16,425	20,610	— 4,185	—	80,179
Minor works - - -	786,630	31,022	34,610	— 3,588	—	—
Total for 1913–14 - -	1,527,204	47,447	55,220	— 7,773	—	80,179
Total for 1912–13 - -	1,512,803	53,446	53,650	— 204	—	80,958

The major works in Bengal are the Midnapur Canal, for irrigation and navigation, and the Hijili Tidal Canal for navigation only. All the minor works are for navigation purposes. There were decreases in receipts in 1913–14, due chiefly to the silting up of certain navigation canals.

(Irrigation.)

Bihar and Orissa :—

—	Capital Outlay to end of Year.	Gross Receipts.	Expenditure.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area irrigated.
	£	£	£	£		Acres.
Major works - - - -	4,111,907	171,091	93,036	78,055	1·89	854,433
Minor works - - - -	346,144	1,253	5,000	— 3,747	—	—
Total for 1913–14 - -	4,458,051	172,344	98,036	74,308	1·89	854,433
Total for 1912–13 - -	4,415,515	156,846	95,950	60,896	1·57	968,856

Amongst the major works are included the Orissa and Sone canals, both of which are productive works, for irrigation and navigation, and the Tribeni and Dhaka Canals, protective irrigation works, which were completed in 1913–14. The minor works include irrigation canals and a navigation canal, the Orissa Coast Canal.

Bombay including Sind :—

—	Capital Outlay to end of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area irrigated.
	£	£	£	£		Acres.
Major works - - - -	4,551,892	294,242	128,512	165,730	3·64	1,425,100
Minor works - - - -	917,174	131,480	44,668	86,812	9·46	911,269
Total for 1913–14 - -	5,469,066	425,722	173,180	252,542	4·62	2,336,369
Total for 1912–13 - -	5,129,590	388,022	169,276	218,746	4·26	2,244,299

In the Bombay Presidency, excluding Sind, the water system does not, as a rule, admit of the construction of large irrigation works. The rivers or streams are mostly small and more or less dependent on the rainfall, and a constant supply cannot be obtained from them without the aid of reservoirs or tanks. The year on the whole was very favourable, the irrigated area showing a considerable increase.

In Bombay proper work was continued on the Nira Right Bank Canal, the biggest protective work hitherto undertaken in India, its cost being estimated at £1,718,000. This work is designed to afford effective relief to the "famine district" of Sholapur and should bring 190,000 additional acres under irrigation. Of the other works in progress, the Godaveri project was approaching completion. Work progressed on the Pravara Canals project. A larger acreage was irrigated by the Nira Left Bank Canal, the largest in the Deccan.

In Sind the success of irrigation depends on the regular rise of the River Indus, and there is constant demand for water from the canals. This fact, and the comparatively inexpensive nature of inundation canals, account for the favourable results generally obtained from the working of irrigation canals in the province. In 1913–14 the inundation was not altogether satisfactory.

Burma :—

—	Capital Outlay to end of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area irrigated.
	£	£	£	£		Acres.
Major Works - - -	1,610,515*	98,881	33,009	65,872	5·16†	279,488
Minor Works - - -	265,379	95,495	16,003	79,492	29·95	489,570
Total for 1913–14 - -	1,875,894	194,376	49,012	145,364	7·75	769,058
Total for 1912–13 - -	1,736,476	175,818	56,457	119,361	6·87	738,672

* Includes £335,409 for the Twante navigation canal under construction. † Irrigation works only.

In Lower Burma there are no large irrigation works, but there is expenditure on river embankment and drainage works and navigation canals.

(Irrigation.)

In Upper Burma all three major works in operation (*i.e.*, the Mandalay, Shwebo, and Mon canals) irrigated a larger area than in 1912–13. In the cases of the Mandalay and Mon canals the area irrigated exceeded the maximum irrigable area shown in the estimates for those works. There was a fall in the area irrigated by minor works. Work on the construction of the Ye-u canal made good progress. The construction of the Twante navigation canal was continued.

Central Provinces and Berar:—

—	Capital Outlay to end of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area irrigated.
	£	£	£	£		Acres.
Major Works - - -	1,113,654	9,606	5,210	4,396	0·39	49,157
Minor Works - - -	26,110	89	—	89	—	2,051
Total for 1913–14 - -	1,139,764	9,695	5,210	4,485	0·39	51,208
Total for 1912–13 - -	834,051	6,530	5,611	919	0·11	31,815

Irrigation from works constructed by the State is still a novelty to the people of the Central Provinces and Berar, and it is therefore necessary to offer its benefits on the most liberal terms. The early cessation of the monsoon created a considerable demand for irrigation, while causing a shortage in the supply of water available. The total area irrigated largely increased. Excellent progress was made with the construction of the Tendula, Wainganga, and Mahanadi canal systems, and with several large tanks. The Mahanadi canal is estimated to cost about £662,000 and to irrigate 360,000 acres, yielding a net revenue of over 8 per cent. per annum, while the Wainganga canal is expected to cost about £254,000, to irrigate some 79,000 acres, and to yield a net revenue of about 5·3 per cent. each year.

Madras:—

—	Capital Outlay to end of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area irrigated.
	£	£	£	£	£	Acres.
Major works - - -	6,036,242	764,291	204,139	560,152	9·28	2,194,904
Minor works - - -	1,297,288	53,173	28,229	24,944	1·92	124,011
Total for 1913–14 - -	7,333,530	817,464	232,368	585,096	7·97	2,318,915
Total for 1912–13 - -	7,267,468	823,649	206,935	616,714	8·49	2,342,674

From an irrigation point of view the Madras Presidency is distinguished by the variety and extent of its works, ranging from the great deltaic systems of the Godaveri, Kistna, and Cauvery to the small tanks and channels maintained by the Revenue Department. The number of tanks directly or indirectly dependent on the local rainfall is very large, and, speaking generally, the success of the irrigation operations is more affected by local climatic conditions than in Northern India, where the irrigation works draw their supply from large rivers fed by the melting of the snow on distant mountain ranges.

For a great number of these smaller works no accounts are kept, and consequently the figures given in the above table afford a very incomplete picture of the work done. The actual expenditure on all irrigation works during the year amounted to over £526,000, and the receipts to £1,761,700. The total area irrigated was 7,143,200 acres.

About 50 per cent. of the area of cultivation, 2½ million acres, of all works to be investigated under the Tank Restoration scheme had been investigated up to the end of the year.

Two schemes of vast magnitude were still under the consideration of the Government of India at the end of the year, viz., the Kistna reservoir project, estimated to cost about £5½ millions and to bring over 700,000 additional acres under irrigation, and the Cauvery reservoir project, which provides for new irrigation of about 400,000 acres, and is estimated to cost over £2½ millions.

North-West Frontier Province:—

—	Capital Outlay to end of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area irrigated.
	£	£	£	£		Acres.
Major works (1913–14) - -	1,431,847	61,548	21,590	39,958	2·79	243,016
Major works (1912–13) - -	1,197,068	58,791	22,120	36,671	3·12	245,530

A large proportion of the canals in this province are privately owned. There were three Government major works in operation at the end of 1913–14, and the profits on the Lower Swat River and Kabul River canals were very satisfactory. As the Paharpur canal fails to pay 4 per cent. on the average on the sum at charge, further capital expenditure thereon will, with effect from 1913–14, be met from ordinary revenues. Work on the construction of the Upper Swat River canal, which was begun in 1907, was almost completed. Part of the canal consists of a long tunnel through the Malakand range. This canal has cost £1,328,000, and irrigates over 152,600 acres in kharif and 229,000 acres in rabi season. About 40,500 acres of the gross area commanded are in the tribal territory across the frontier. The canal was opened on 14th April 1914.

Punjab:—

—	Capital Outlay to end of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area irrigated.
	£	£	£	£		Acres.
Major works - - - -	13,627,864	2,315,968	587,401	1,728,567	12·68	6,878,024
Minor works - - - -	39,468	8,944	5,953	2,991	7·58	58,519
Total for 1913–14 - -	13,667,332	2,324,912	593,354	1,731,558	12·67	6,936,543
Total for 1912–13 - -	12,993,529	2,192,484	585,587	1,606,897	12·37	7,044,171

Good results were achieved under unfavourable conditions; the figures of revenue for the year exceeded all previous records. The higher receipts from a smaller irrigated area are mainly due to the increase of indirect receipts from land revenue in the newly assessed colony tracts. Excluding the Upper Chenab and Lower Bari Doab canals, which, though opened for irrigation, were not completed, the return on capital was over 22 per cent. The Lower Chenab canal shows remarkable results, a net revenue of 42 per cent. being realised. Rapid progress was made with the Triple Canal Project, but neither the Upper Chenab canal nor the Lower Bari Doab canal can work to full advantage until the Upper Jhelum canal, which will complete the project, has been finished. A project estimate has been made in connection with the Sutlej Valley project, a vast scheme for improving the supply of the existing inundation canals dependent on the Sutlej and for extending the benefits of irrigation to the desert regions south of the river. The cost is estimated at £6,000,000, and the irrigable area at three million acres. Measures are being devised to prevent the water-logging of low-lying land.

United Provinces of Agra and Oudh:—

—	Capital Outlay to end of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area irrigated.
	£	£	£	£		Acres.
Major works - - - -	7,875,689	767,071	245,253	521,818	6·63	3,318,817
Minor works - - - -	254,133	12,476	8,681	3,795	1·49	131,086
Total for 1913–14 - -	8,129,822	779,547	253,934	525,613	6·46	3,449,903
Total for 1912–13 - -	7,919,145	676,044	244,505	431,539	5·45	2,696,769

All the tracts commanded by the canals were stricken with drought and the demand for water was intense through both seasons. Nowhere was the supply fully equal to the demand.

(Irrigation.)

Experience has yet again shown the urgent necessity of a weir to control the available supply of water in the Ganges, and also of further storage reservoirs in Bundelkhand.. The Ganges weir at Bhimgoda is by far the most important work now under construction, and good progress was made with the preliminary work on this great dam which is to cost about £267,000.

Buildings and Roads (Civil).

The Buildings and Roads branch of the Public Works Department embraces all the operations of the Department which are not classed under the special heads of Railways and Irrigation. It includes the extension and maintenance of the road system, the construction and repair of all the buildings required for the proper discharge of the functions of government in all its branches, and a large miscellaneous class of works of public improvement, including lighthouses, harbours, embankments, boat bridges, and ferries, and the water supply and sanitation of towns.

The operations of this branch of the Department are classed primarily under the head of Civil Works, the expenditure on which is chiefly met from provincial resources. The classification of this expenditure for 1913–14 under the various heads is shown in the following table :—

——	Central Provinces and Berar.	Burma.	Assam.	Bengal.	Bihar and Orissa.	United Provinces of Agra and Oudh.	Punjab.	North-West Frontier Province.	Madras.	Bombay.	India General.	Total.
	£	£	£	£	£	£	£	£	£	£	£	£
Imperial -	77,724	24,271	2,805	110,429	13,848	76,214	41,637	218,934	31,058	56,687	256,705	910,312
Provincial*	458,919	674,107	441,162	681,244	554,917	600,262	646,300	—	1,099,315	793,598	—	5,949,824
Total -	536,643	698,378	443,967	791,673	568,765	676,476	687,937	218,934	1,130,373	850,285	256,705	6,860,136

* Includes expenditure by the Civil Department in addition to that by the Public Works Department.

Expenditure by Civil Officers from Imperial Funds	£	47,304
Expenditure in England - - - -	£	101,184
Grand Total - - -	£	7,008,624

The extension of local Government in India has thrown a large portion of the smaller class of public works into the hands of the local Boards. Speaking generally, the boards maintain their own establishments, but in the case of any works of unusual difficulty they have recourse to the professional skill of the Public Works officers.

The following short account of Civil Works for the year 1913–14 is given under the heads of the different provinces in which the expenditure was incurred :—

Assam.—Improvements were made to official residences, and buildings for judicial, medical, educational, police, and other services were under construction. A sum of over £170,000 was spent on roads and bridges.

Bengal.—The buildings completed or in progress included salt golas at Chittagong, the Central Telegraph Office at Calcutta, additions and alterations to several court-houses, jails, post and telegraph offices, and police buildings, and the construction or extension of educational and hospital buildings, official residences, &c.

Systematic measures were undertaken for the improvement of roads in the Duars.

Bihar and Orissa.—In 1912–13 preliminary investigations were made and estimates amounting to £623,407 were submitted for the establishment of a permanent capital for the Local Government at Bankipore, near Patna. Pending the construction of the capital the seat of the Local Government has been temporarily located at Ranchi, and estimates amounting to nearly £100,000 were put forward for temporary works at Ranchi and Bankipore.

Bombay.—The total expenditure during 1913–14 was £969,850.

The most important works in progress chargeable to Imperial Funds are the new Custom Houses at Bombay and Karachi. Good progress was made with the Museum of Western India and the Science Institute at Bombay, and the Science Institute at Ahmedabad was completed.

Under Provincial works, considerable sums were spent on educational buildings, including hostels for students, £72,000 on police buildings, £39,000 on land revenue buildings, and £68,000 on medical buildings. Large amounts were expended on drainage and waterworks.

A total sum of £163,000 was spent on communications.

Burma.—The total expenditure, £888,400, was the highest recorded for many years. It was partly defrayed from a special Imperial grant, devoted chiefly to the replacement of old wooden bridges by permanent structures. The chief buildings in progress included the new Customs House and Telegraph Office at Rangoon, and extensions were made to the new General Hospital, Rangoon.

Central Provinces and Berar.—The year was one of exceptional activity and there was a record total expenditure on civil works of £510,000, of which about £243,000 was on original provincial works. The buildings included the large new post office at Nagpur and other post and telegraph offices, forest and excise buildings, official residences at Nagpur and elsewhere, law courts, schools and colleges, &c. The expenditure on communications amounted to £189,000, of which about £80,000 was for original works. Large sums were again spent on causeways and bridges with the object of keeping all important lines of communication open throughout the year.

Delhi.—A committee called the Imperial Delhi Committee was appointed to supervise the construction of the new Imperial Capital. Their work in 1913–14 consisted mainly in the preparation of the project based on the reports of the Town Planning Committee sent out from England in 1912. The design of Government House and the principal secretariat buildings was entrusted to Mr. E. L. Lutyens and Mr. H. Baker, the architects selected for the purpose. During 1913–14 works were undertaken to improve the roads to cope with the traffic. A 2′ 6″ gauge railway was also constructed to serve the more important work sites. An arboricultural nursery was established for the trees required in the new capital, and the manufacture of bricks on a large scale was commenced. The acquisition of land, begun in 1912, was almost completed, and the site was levelled. The total expenditure up to the end of the year was £567,000.

Madras.—Among the works completed during the year were the new Legislative Chamber at Fort St. George, the court-house at Guntur, and the Collector's office at Vizagapatam. Good progress was made with the works connected with the Forest College, Central Farm, Agricultural College, and Research Institute at Coimbatore. The re-organisation of the Madras police force has necessitated the erection of many police buildings and the works under execution numbered 200.

Under the head of Communications good progress was made on the Indravati Bridge. A number of other bridge works were also in hand.

North-West Frontier Province.—The works completed or in progress during the year included additions and alterations to Government House, Peshawar, and new barracks at Landi Kotal and Wana. Great progress was made in improving the Khyber roads and the Hazara trunk road into Kashmir. The expenditure on works in 1913–14 amounted to £219,559.

Punjab.—There have been pressing demands for many years for more and better Government buildings and for improved communications in this rapidly progressing province. The expenditure on public works amounted to about £611,000, the highest figure yet attained. This total included £326,000 for provincial civil works, £33,300 for educational buildings and £30,000 for medical buildings, £27,300 for the Imperial Legislative Council Chamber at Simla, and instalments of the cost of hydro-electric and water supply schemes at Simla. The outlay on communications was about £141,000, of which £63,000 was on works and the remainder on repairs.

United Provinces.—The expenditure during the year decreased from about £753,000 in the previous year to £720,000. Imperial works in progress include the Forest Research Institute at Dehra Dun and new post offices for Allahabad, Lucknow, and Agra. The new High Court buildings were begun and several other judicial buildings and many police stations were begun or completed. The year was notable for activity in the erection of Government educational buildings, including seven new high schools, and a school of arts and crafts at Lucknow.

Five bridges were completed and good progress was made with the through metalled road from Agra to Cawnpore. The King Edward Memorial Sanatorium at Bhowali and the King George's Medical College and Hospital at Lucknow were completed. The Law College of Allahabad University was opened.

Eighty miles of new metalled road were constructed during the year and 71 miles of new avenues were planted.

(Post Office.)

CHAPTER XII.

POST OFFICE AND TELEGRAPHS.

(For further details, see Statistical Abstract for British India, Tables 45 *to* 47, 90 *to* 96, *and* 98 *to* 100.)

The complete amalgamation of the Indian Post Office and Telegraph Departments has been sanctioned by the Secretary of State, with effect from 1st April 1914.

Post Office.

Financial Results.—The receipts and charges of the Post Office for the last three years, as shown in the Finance and Revenue Accounts, have been as follows:—

Year.	Receipts.	Expenditure.	Net Revenue (+) or Deficit (−).
	£	£	£
1911–12 - - -	2,134,279	2,008,470	+125,809
1912–13 - - -	2,262,436	2,026,567	+235,869
1913–14 - - -	2,410,210	2,092,019	+318,191

Extent of Postal Operations.—The extent of the operations of the Post Office and their development during the last three years are shown in the following tables:—

Year.	Post Offices.	Letter Boxes.	Postal Officials.	Length of Postal Lines.
	No.	No.	No.	Miles.
1911–12 - - - - - - -	18,801	48,122	92,755	153,950
1912–13 - - - - - - -	18,789	48,524	92,870	154,493
1913–14 - - - - - - -	18,946	49,131	93,955	155,806
Increase in 1913–14 as compared with 1912–13 - -	+157	+607	+1,085	+1,313

The general correspondence returns, of which a summary is given below, show an increase exceeding 35 millions of articles (excluding money orders) for 1913–14 as compared with the figures for 1912–13. Of the additional articles letters accounted for about 11 millions and postcards for over 20 millions. The new and larger post-cards, first issued in 1912–13, were in great demand.

Year.	Letters and Postcards.	Newspapers.	Parcels.	Other Postal Articles.	Total.
	No.	No.	No.	No.	No.
1911–12 - - - -	850,889,587	52,612,161	10,598,068	51,292,914	965,392,730
1912–13 - - - -	891,950,285	54,956,826	11,593,563	56,287,771	1,014,788,445
1913–14 - - - -	923,016,143	56,422,275	12,667,172	57,816,390	1,049,921,980
Increase in 1913–14 over 1912–13 -	+31,065,858	+1,465,449	+1,073,609	+1,528,619	+35,133,535

Alterations in Postal Arrangements during 1913–14.—During the year the maximum weight of inland post pattern packets was raised from 80 to 200 tolas. Several new postage stamps were issued.

Amount of Postal Matter dealt with.—The total number of articles received for delivery, including money orders, was over 1,080 millions, of which, it is estimated, 99·79 per cent. were actually delivered or paid, as compared with 99·75 per cent. in the preceding year.

In 1913–14 the receipts of postal articles (excluding money orders) at the dead-letter offices were 9,706,858; of this number, 7,548,447 articles were either delivered to addressees or returned to senders, and 2,158,411 could not for various reasons, such as the absence of an address, be similarly treated. This last figure is only ·21 per cent. of the total number of articles received for delivery.

(Post Office.)

Foreign Correspondence.—The total number of letters, postcards, and packets sent and received by the foreign post was 69 millions as against 64 millions in 1912–13. India received 28 millions from, and despatched 15 millions to, the United Kingdom, while the receipts from other countries were 12 millions, and the despatches thereto 13 millions. Taking newspapers and book and sample packets alone, 14 out of 19 millions received came from the United Kingdom and two out of seven millions despatched were sent thither. The number of foreign parcels sent and received rose from 889,781 to 994,921, of which more than half were exchanged with the United Kingdom.

Insurance, Value Payable Post, Money Orders, and Savings Bank.—Information regarding these branches of the work of the Post Office can be most conveniently given in a tabular form :—

	1912–13.	1913–14.	Increase or Decrease.
Insurance of Letters and Parcels :—			
Number of articles insured	2,706,436	2,941,204	+234,768
Receipts from Insurance Fees	£57,961	£63,333	+£5,372
Number of claims admitted	111	133	+22
Net payment in respect of claims	£801	£1,303	+£502
Value Payable Post :—			
Number of articles sent	8,815,915	9,572,023	+756,108
Value specified for recovery (approximate)	£7,333,300	£8,333,300	+£1,000,000
Money Orders :—			
Value of Ordinary Inland Orders issued in India	£28,750,753	£30,906,571	+£2,155,818
„ Telegraphic Money Orders issued in India	£2,845,147	£3,215,812	+£370,665
Value of Foreign Orders issued in India	£703,271	£740,866	+£37,595
„ „ „ paid „	£2,555,157	£2,784,397	+£229,240
Savings Bank :—			
Number of Post Offices transacting Savings Bank business at end of year.	9,460	9,824	+364
Number of accounts in Post Office Savings Banks	1,566,860	1,638,725	+71,865
Amount of Deposits at beginning of year	£12,599,030	£13,740,967	+£1,141,937
„ New Deposits during year	£7,498,071	£7,323,066	−*£175,005*
„ Interest credited „	£374,698	£412,731	+£38,033
„ Withdrawals „	£6,730,832	£6,031,732	−*£699,100*
Amount of Deposits at end of year	£13,740,967	£15,445,031	+£1,704,064
Securities held on behalf of Depositors at end of year	£595,980	£728,687	+£132,707

Offences.—During the year under review there were 25 cases in which the mails were plundered by highway robbers, of which 13 were in British territory and 12 in Native States. The figures for the preceding year were 12 and 7 respectively.

The number of postal officials found guilty of criminal offences was 485. The defalcations and losses amounted to £2,957, as compared with £2,738 in 1912–13.

Sale of Quinine.—To facilitate the supply of the drug, especially in cases of malaria, quinine is sold at Post Offices throughout India. In 1913–14, 12,059 lbs. were given to the Post Office for distribution, as compared with 10,694 lbs. in the preceding year.

Telegraphs.

The following statement refers to the whole of the telegraph system under the direct control of the Government of India, but excludes that of the Indo-European Telegraph Department, for which, as usual, a separate account is given. The system on 31st March 1914 consisted of 81,593 miles of line and 321,801 miles of wire and cable.

Among events of interest during 1913–14 was the opening of the new central telegraph office at Calcutta. The success of the co-operative credit society established for the staff of the central telegraph office at Calcutta has led to the formation of

(Telegraphs.)

similar societies in the Bombay, Madras, Agra, and Lahore offices. The effect of a cable laid between Penang and Colombo with an extension to Aden has been to divert from India a great deal of traffic hitherto exchanged between countries east and west of India. At the same time, however, the cable companies concerned have agreed to a reduction of 4*d.* a word in the rates for telegrams exchanged between India and Europe from May 1914.

The following statement shows, for a period of five years, the progress that has been made in extending public telegraphic communication :—

Year.	Capital Expenditure.	Miles of Line.	Miles of Wire.	Miles of Cable.	Offices open to the Public.		
					Departmental, Ordinary and Postal combined.	Railway and Canal.	Total.
	£						
During 1909–10 - - -	167,955	2,712	5,643	— 30	104	148	252
„ 1910–11 - - -	147,555	1,993	4,566	89	94	— 54	40
„ 1911–12 - - -	226,972	1,740	7,197	8	99	217	316
„ 1912–13 - - -	225,707	2,277	7,795	8	160	113	273
„ 1913–14 - - -	247,811	2,731	10,767	18	281	2,205	2,486
To end of 1913–14 - -	8,112,719	81,143	313,699	450	3,396	6,944	10,340

A general view of the operations of the Department in 1913–14, in comparison with those of the four previous years, will be gained from the following statement :—

Year.	Number of Paid Telegrams during Year.	Gross Receipts, including State but excluding *pro formâ* Revenue.	Charges.	Net Receipts.	Return on Capital.
		£	£	£	
1909–10 - - - - - -	12,084,697	795,828	807,519	— *11,691*	—
1910–11 - - - - - -	13,090,228	840,517	791,833	48,684	·66
1911–12 - - - - - -	14,671,819	934,813	821,624	113,189	1·48
1912–13 - - - - - -	15,449,071	1,001,972	854,776	147,196	1·89
1913–14 - - - - - -	16,596,697	1,106,400	922,000	184,400	2·27

The whole of the annual expenses connected with the telegraphs in India, whether incurred on capital account for the construction of new lines or on revenue account for the maintenance and working of the system, are defrayed from the revenues of the Government of India. In recent years the Department has had to meet heavy expenditure, *e.g.*, on the erection and upkeep of wireless telegraph stations, for which there is at present very small return.

Class of Telegram.	1912–13.		1913–14.	
	No.	Value.	No.	Value.
		£		£
Inland State - - - -	1,130,721	65,746	1,276,738	78,077
Foreign State - - - -	13,144	5,117	13,593	4,997
Total State - - -	1,143,865	70,863	1,290,331	83,074
Inland Private - - -	12,712,201	474,701	13,661,663	509,896
Foreign Private - - -	1,593,005	171,228	1,644,703	168,110
Total Private - - -	14,305,206	645,929	15,306,366	678,006
Total State and Private - -	15,449,071	716,792	16,596,697	761,080

Deferred foreign telegrams in plain language at half rates are growing rapidly in popularity, having increased in number by 58 per cent., while foreign press telegrams increased in number by 15 per cent.

(Telegraphs.)

The interruptions in 1913–14 were in no case of a very serious character.

As regards radio-telegraphy, there are now 17 wireless stations in India, seven of which are situated inland. Two were opened during the year, at Quetta and Peshawar, and others are under construction. The stations worked well, except for atmospheric disturbances during the summer months.

At the close of 1913 the number of telephone exchanges established by the Telegraph Department was 180 and by telephone companies 13. The gross rental obtained from telephone services was £49,633, as against £45,090 in 1912. Rates were revised. Royalties paid to the Department by the companies in 1913 amounted to £5,523.

Indo-European Telegraph Department.

The system of telegraph lines and cables connecting the terminus of the Indo-European Company's telegraphs at Teheran and that of the Turkish telegraph lines at Fao with the Indian telegraph system at Karachi is controlled by the Indo-European Government Telegraph Department, and consists of 1,948 knots of cable, 2,724 miles of line, and 7,174 miles of wire. This also includes a cable from Jask to Muscat, 219 knots in length.

The Department also maintains a line from Teheran to Meshed, 568 miles, which is the property of the Persian Government. By an agreement dated 4th January 1913 with the Persian Government the Department undertook to reconstruct and maintain the Persian telegraph line from Borasjoon on the Shiraz-Bushire line to Ahwaz and Mohammerah, with the branch line from Ahwaz *viâ* Shushtar to Dizful.

The financial results of working the Department, as compared with the three preceding years, were as follows :—

Year.	Capital Outlay to end of Year.	Gross Receipts.*	Expenditure.	Net Receipts.	Percentage of	
					Net Receipts to Capital.	Expenditure to Gross Receipts.
	£	£	£	£		
1910–11	999,966	121,687	74,749	46,938	4·69	61·43
1911–12	1,002,539	131,822	72,710	59,112	5·90	55·16
1912–13	984,855	134,130	96,455	37,675	3·82	71·91
1913–14	1,008,097	131,130	77,454	53,676	5·32	59·07

* This represents the revenue of the Department after adjustments made in accordance with the provisions of the Joint Purse arrangement.

The number of messages transmitted during the year amounted to 383,079, as compared with 397,179 in 1912–13. All but 3,740 of these were commercial and private telegrams.

Under the Joint Purse Agreement, the share of the Department was £136,133, as against £137,802 in 1912–13. The amount paid into the Joint Purse for the year under review was £80,271.

The Departmental receipts from the Australasian Message Fund for 1913–14 amounted to £7,702, being £607 more than in 1912–13, and an increase of £1,467 on the receipts for 1889, on which the original Australasian Message Fund was based.

There were no total interruptions stopping traffic between Karachi and Bushire in 1913–14. The Bushire-Teheran section was totally interrupted once owing to abnormal floods, the interruption extending over $2\frac{2}{3}$ days. Between Teheran and London the interruptions aggregated $10\frac{1}{3}$ days. There were no interruptions to the Fao-Bushire cable, but on the Turkish route west of Fao interruptions occurred to the total extent of $16\frac{1}{2}$ days, the lowest figure recorded in the last five years.

Acts of wilful damage to the lines were less numerous than in 1912–13, and the general condition of the country districts during the year was better, though still very unsatisfactory.

CHAPTER XIII.

SCIENTIFIC DEPARTMENTS.

GENERAL.
BOARD OF SCIENTIFIC ADVICE.
SURVEY OF INDIA.
OTHER SURVEYS.
METEOROLOGICAL DEPARTMENT.
AGRICULTURAL DEPARTMENTS.
CIVIL VETERINARY DEPARTMENT.
ARCHÆOLOGICAL DEPARTMENT.
MEDICAL RESEARCH INSTITUTES.

General.

Owing to the progress made in recent years in the application of science to various branches of the work of Government, a special chapter is now necessary for dealing not only with surveys, but also with other scientific departments that have been established by the Imperial or Provincial Governments for the conservation and development of the natural resources of the country. In 1913–14 expenditure on Scientific Departments amounted to about £827,000, against which must be set about £100,000 for receipts. The great bulk of the expenditure was for agricultural and veterinary work and for survey work.

The Board of Scientific Advice.

This Board includes the heads of the Meteorological, Geological, Botanical, Forest, and Survey Departments, representatives of the Agricultural and Civil Veterinary Departments, and other scientific authorities whose special attainments may be useful. It was established in 1902 to co-ordinate official scientific inquiry, to ensure that research work is distributed to the best advantage, and to advise the Government of India in prosecuting practical research into those questions of economic or applied science on the solution of which the agricultural and industrial development of the country so largely depends. The programmes of investigation of the various departments are annually submitted to the Board for discussion and arrangement, and an annual report is published on the work done, as well as a general programme of research for the ensuing year. The reports and the programmes formulated are communicated for consideration to an Advisory Committee of the Royal Society, who from time to time furnish valuable suggestions and advice. The Board held its 25th meeting in November 1913.

Survey of India.

The work of the Survey of India Department falls under various heads, namely, the trigonometrical survey, topographical and forest surveys, special surveys and explorations, and map production. Cadastral surveys are now carried out by the Provincial Land Records and Settlement Departments. The latest available information on most of these matters relates to the year ended 30th September 1913. The total cost of the Department for that year was about £225,000.

In 1904 attention was drawn to the defective state of the topographical survey maps, and a Committee was appointed to report on the subject. To overtake the arrears of revisional survey and to secure that the map of India should be brought up to date and revised at proper intervals, they recommended a considerable increase of establishment and an increased expenditure of £210,000 a year for the next 25 years. They also made recommendations for altering the size and improving the quality of the maps. After further inquiry the Government of India decided that a scale of 1 inch to the mile would ordinarily be sufficient, reserved forests and special areas being surveyed on the scale of 2 inches to the mile, and the $\frac{1}{2}$-inch scale employed for waste and barren tracts. Of the total of 1,821,600 sq. miles included in the programme, 311,885 sq. miles were completed by September 1913.

During the year ending September 1913 field operations were carried on by 19 survey parties. A large amount of exploration on the North East frontier was carried out during 1911–12 and 1912–13.

(Survey of India.)

The triangulation party continued the principal triangulation of the Sambalpur series and completed 2,455 square miles of secondary triangulation. Tidal operations were carried on at nine stations. One party was employed on pendulum observations, one on levelling, and one on magnetic survey. A base line party was instituted in March 1913.

The total area surveyed topographically was 52,425 square miles. Forest surveys were carried out in five provinces.

Two hundred and twenty-two sheets of the 1-inch map were published, making a total published of 878 out of an entire programme of 6,328. The total number of maps issued was 327,311.

Other Surveys.

Geological —The first object of the Geological Survey Department is the preparation of a general geological map of India, and this work was continued during 1913 by surveys in Bombay, Burma, Rajputana, Central India, Kashmir, and the Central Provinces. Various economic investigations, which form an increasingly important part of the Department's work, were conducted. These included investigation of marble and sandstone quarries for the purpose of building Imperial Delhi, the examination of the Korea coal-field in the Central Provinces, of petroliferous localities in the Punjab and North-West Frontier Province, of pitchblende areas in the Gaya District, &c.

Botanical.—The botanical survey is under the direction of the Superintendent of the Royal Botanic Gardens, Calcutta. There is also an Economic Botanist to the Botanical Survey. The economic botanists of the Provincial Government are associated with this Department. Much botanical work is done by forest officers and others outside the Department.

Zoological survey work is carried on by the Indian Museum, and marine survey work is under the Royal Indian Marine, who possess two specially-equipped vessels for the purpose.

Meteorological Department.

The work of the Meteorological Department falls into two parts, the directly useful, and the purely scientific, aiming at the ascertainment of facts that shall be of practical utility in future. The scientific work includes the experimental and theoretical examination of the physical processes, on the earth or in the sun, which determine the weather. The practical work consists chiefly in the collection and distribution of current weather information. The area under observation by the Department embraces not only India but the whole of the Arabian Sea and Indian Ocean, the Persian Gulf, Persia, Arabia, Chinese Turkestan, and Tibet. There were 289 observation stations (of which 48 were non-departmental) at the close of 1913–14, ranging from the well-equipped observatories at Kodaikanal, Madras, Bombay, Alipore (Calcutta), Allahabad, and Lahore, to small stations at which observations of temperature, rainfall, and snowfall only are recorded. The Department inspects their working and collects the results; it also studies the meteorology of the Indian Ocean by means of the logs of vessels arriving at Indian and other ports, and conducts seismographic observations. A series of investigations of the upper air, calculated to extend over a period of 10 years, has been started. Balloons fitted with recording apparatus are employed. Special investigations comprised wind observations, solar and terrestrial radiation observation, sunshine observations, seismological observations, barometric observations, and observations of underground temperature. The actual rainfall of the last ten years compared with the normal will be found in the annual *Statistical Abstract of British India* (Table 118). Daily, weekly, and monthly weather reports, as well as seasonal forecasts and storm warnings, are issued. Proposals are on foot for re-organising the system by which warnings of approaching storms are sent to ports on the Bay of Bengal from Calcutta, and to ports on the Arabian Sea coast from Simla. Meteorological information is now supplied from wireless coast stations to ships that ask for it. The new arrangement by which vessels on certain routes supply similar reports to the Department is working satisfactorily. The system of flood warnings to canal, civil, and railway officers, to military officers, and to private firms continued to be useful, and 2,287 such warnings were issued during 1913–14.

Agricultural Departments.

General.—The greater part of the scheme for the development of agricultural experiment and instruction formulated in 1905 has now been realised. It is based on the generally accepted principle that effective improvement in Indian agriculture depends largely, or mainly, on the application of European science to Indian conditions. Although India is a land of skilled agriculturists, the outturn per acre of many crops is comparatively small, and the quality of some kinds of produce is inferior. Much can be done to improve and develop Indian agriculture by energetic research and by the application of more scientific methods and greater scientific knowledge than were formerly available. The necessary scientific knowledge must inevitably be obtained in the first instance by the recruitment of trained specialists from the United Kingdom; but it is an essential part of the scheme that facilities for the best agricultural training shall be made available in India, in order that the country may become self-supporting, so far as possible, in the scientific development of agricultural methods on lines suited to local conditions.

There are Agricultural Departments in every larger Province under a Director of Agriculture with one or more Deputy Directors—the latter being trained agriculturists. Besides these there are various specialists attached to the provincial departments and in some cases the Principalship of the Provincial Agricultural College is a separate post. In Bengal there is a Fibre Specialist. The officers directly under the Government of India include the Director of the Pusa Institute, who is also Principal of the Agricultural College and Agricultural Adviser to the Government of India, and eleven specialists (two entomologists, a pathological entomologist, two bacteriologists, two mycologists, two agricultural chemists, an economic botanist, and a cotton specialist). The above officers are all recruited in England; there is also a considerable number of locally appointed officers.

There are agricultural colleges in six provinces, besides the Central College at Pusa which is intended to provide more advanced training. In every province there are experimental farms, the ultimate aim being that there should be one such for each large tract of country in which the agricultural conditions are approximately homogeneous. The Provincial Departments distribute selected seeds and manures and furnish advice as to implements and crops.

There is a Board of Agriculture which suggests and reviews programmes of work and discusses current problems. It held its eighth meeting at Coimbatore in December 1913. Agricultural memoirs and an agricultural journal are published.

Pusa Research Institute and College.—The experimental work carried out at the farm and laboratory by the specialists mentioned above covered researches into the chemistry of soils, the yield of sugar-canes and beets, and milk analysis. A new "Pusa" wheat—No. 12—has distinguished itself as the best for general cultivation both in the Gangetic plain and in the black soil of the Peninsula, and is being actively taken up by the Provincial Agricultural Departments. A useful type of tobacco plant for cigarette tobaccos has been evolved, and promising experiments are in progress for ascertaining a safe and productive method of cultivating "Java" indigo, which, although its yield of indican is high, is liable to disease. The fruit experimental farm at Quetta has been laid out. Of plant diseases under investigation the most important is the virulent paddy disease, known as ufra. A bulletin on lac-cultivation has had a gratifying success. The cotton specialist visited and reported on the various provincial cotton-growing stations.

The College is chiefly a higher teaching institution for post-graduate studies in one branch of research. During 1913–14 eight students were under training, of whom two were private students; others were sent by local governments and Native States. Some visitors also worked at the Pusa laboratories. Seven students attended short courses in cattle management or sericulture.

Bengal.—There are six agricultural stations, each typifying a separate area of the Presidency, besides farms at Kalimpong and Chittagong. No entirely new scheme was started during 1913–14, but those started in the previous year were considerably developed. There is now a supervisor in each division in connection with the demonstration scheme—a matter in which Bengal is handicapped, owing to the absence of a subordinate revenue agency. A new silk nursery has been started, and

attention was given to the reform of the method of compiling jute forecasts. A considerable advance has been made in experimental work—the selection of suitable varieties of paddy, manurial experiments, the selection of various seeds, and of sugar-cane cuttings for distribution, and the suitability of different areas for tobacco were among the chief subjects of experiment during the year. Work at the new Rangpur dairy farm was confined chiefly to the erection of buildings and purchase of cattle. There is room for great improvement in the average yield of Bengal milch cows. Jute seed selected by the fibre expert is being tested. Attention is being paid to the sugar industry, both with regard to date-palm and cane sugar.

The Fishery Department (which covers Bihar and Orissa as well as Bengal) conducted various experiments with a view to increasing the fish-supply of the rivers. Schemes are also in hand for developing the marine fishery of Bengal.

Bihar and Orissa.—There are now six agricultural stations in all, including a newly-started cattle-breeding station at Sipaya. Another for sugar-cane is to be started at Ranchi. Experiments at these stations covered tests of sugar-cane and Pusa wheat, flax-growing, and crop-cutting. The Divisional Agricultural Associations were engaged in carrying out different experiments on definite lines approved by the Department, which grants them each a sum of Rs. 1,000. Well-boring operations in the Patna division are now conducted under the District Boards. In Bhagalpur experimental borings are proceeding.

The Agricultural College at Sabour is also the college for Bengal and Assam. Ten students obtained the diploma, the total number of students on 30th June 1914 being 17. Six students who had taken a short vernacular course in June continued their studies, with satisfactory results; but these courses have had to be abandoned through lack of attendants. It is still proving hard to secure students of the cultivating class for training at the experimental stations.

Assam.—There are now four agricultural experiment stations, besides a fruit experiment station. Two of these were started in 1913–14, and are devoted respectively to rice and sugar-cane. Other crops which formed the subject of experiment were potatoes, green manure crops, fodder crops, and oilseeds. An officer was on special duty inquiring into the Assam silk industry. There are 10 apprentices in training on Government farms as demonstrators. Demonstrations were carried out in four districts in the manuring of rice with bonemeal and flour phosphate, the growth of superior sugar-cane and the use of roller iron sugar-cane mills, the growing of potatoes, terrace cultivation, and fruit growing. A handloom weaving master has been appointed, and his services are in great demand.

United Provinces.—This province is now practically covered by a network of farms and seed stations, some of which are managed by the Department in co-operation with District Boards, Agricultural Associations, or private landowners. During 1913–14 special attention was paid to utilising these and other local agencies, such as co-operative societies for propagating agricultural knowledge. Besides distribution of seeds, sale of implements, &c., there was an unprecedented activity in well-boring owing to the drought; 1,642 wells were bored, the percentage of successes being 66. The immediate problem is the lifting of the water. With the present price of cattle, oil engines are proving the cheaper method, and there are probably now 50 of these working in one district alone. An Honorary Magistrate has started a school to teach villagers to drive the engines. Experimental work was concerned chiefly with the cultural and mechanical problems of the sugar industry, cotton selecting and ginning, and wheat. The substitution of power for bullocks in sugar-crushing is an urgent problem, in view of the high price of cattle already referred to.

In the Agricultural College there was a great fall in numbers owing to the establishment of a separate school for candidates for the Subordinate Revenue Department; the question of re-constituting the course of training is being considered.

Punjab.—There are agricultural stations at Lyallpur and Gurdaspur, besides two seed farms and a cotton farm at Hansi, which have recently been started. An unfortunate occurrence was the distribution by the Department of a type of smooth-leafed American cotton which proved very liable to insect attacks. To restore confidence in the Department, which would otherwise have been impaired, compensation has been granted to some of the principal sufferers from this occurrence. The spread of American cotton, however, continues, and land has been specially leased

(Agricultural Departments.)

on the Bari Doab canal for the purpose of propagating its use. The selection of types of wheat continues. The Department issues French silkworm-seed, the yield from which in 1913–14 showed an improvement. There are good prospects for sericulture among the small landowners of the submontane tracts. The work of popularising implements continues, but more demonstrators are needed. The Agricultural Associations are doing most useful work in popularising improved agricultural methods, and the machinery of the Co-operative Societies is used for seed-distribution. The Agricultural College opened with a college class of 11. It must now be regarded primarily as a training place for members of the Department.

North-West Frontier Province.—The area of the experimental farm at Tarnab is being extended. Experiments were made with cotton, sugar-cane, maize, and other crops, and the possibility was established of growing sugar-beet successfully near Peshawar. Large numbers of fruit-trees have been supplied from the farms at Tarnab and Haripur: they are reported to be doing well.

Central Provinces.—It has been necessary to call a halt in the expansion of the Department's activities pending the strengthening of the supervising staff, which is now in progress. An unfavourable season affected the results obtained on the Government farms. These are eight in number, and are chiefly devoted to cotton, rice, wheat, dairy and fodder, and sugar-cane. The Rosea cotton-seed from the Akola farm continues to enjoy its high reputation in Berar. Nearly two million lbs. of Rosea seed were grown by private seed-farms organised on a co-operative basis. In one farm a short agricultural course was attended by 37 men, 34 of whom passed. Demonstrations were held, as usual, of the advantages of the single-seedling method of rice transplantation. At the Nagpur College it is becoming increasingly necessary to establish a separate curriculum for students of the agriculturist class who come up insufficiently prepared for a scientific course.

Burma.—There is little demand among Burma agriculturists for higher agricultural education, the bulk of them being small holders. A scheme is on foot for introducing the teaching of agriculture in primary and middle schools, in order that the people thus educated may be able to take advantage of the improved methods which the Department demonstrates. For the purpose of demonstration, district agriculturists are being trained. The first batch completed their training in April 1914, and have commenced on demonstration work in six districts. Experimental work at Mandalay and Hmawbi was concerned chiefly with rice selection and pulse. Besides these two stations there are small subsidiary stations, and two new ones were opened during the year for the study of wheats and cottons. A third station has been established at Takton for the dry zone. Of the experimental gardens, all except two, having served their purpose, have been closed. As the Department develops, there is, of course, less experimental work done through district agency. It has been largely replaced by experiments made by cultivators on their own initiative.

Madras.—The proposed new preliminary course at the Agricultural College was approved by the Board of Agriculture and recommended to the consideration of other provinces. It was introduced in June 1914. It consists of practical agriculture and is suitable for students of the agriculturist class who have not sufficient preliminary education for the more scientific subjects. There are ten agricultural stations including the central station at Coimbatore. The selection and cultivation of sugar-canes, paddy, and cotton, were the chief subjects of experiment, the manuring of paddy with green manure and cake yielding specially interesting results. It is fairly well established that this is the most suitable way of applying nitrogen to paddy. With the rapid expansion of ground-nut cultivation there has been a deterioration in the percentage of oil, and it has been found that to obviate this the crop should be grown either with, or alternated with, certain cereals. Millets also receive attention. Work is now progressing on the sugar-cane station near Coimbatore. Besides its work in freshwater, the Fisheries Department successfully cultivated edible oysters and drew up a scheme for cultivating pearl oysters.

Bombay and Sind.—The new buildings of the Agricultural College are now complete. This institution is proving more successful than some of the colleges in other provinces; the number of students in 1914 rose from 110 to 117—the increase being due to the popularity of the short course which is provided for the sons of landowners and farmers. There are 20 agricultural stations, 19 plots and sub-stations,

and graduate fieldmen demonstrators in almost every district. The Department has paid much attention to seed improvement; its chief successes have been the introduction of certain highly-satisfactory foreign varieties of groundnut (a crop ever increasing in popularity) and elaborate trials with a view to ascertaining the most suitable varieties of cotton for each tract of cotton-land. Efforts are being made to impress on the farmer the importance of cleaning the soil, and experiments are being conducted in connection with dry-farming and manuring problems. The services of the agricultural engineer are much in demand: power is being extensively used for water raising and sugar crushing (thus setting bullocks free for field work), and well-boring operations have been successful—especially in Upper Gujarat.

Civil Veterinary Department.

This Department is responsible for all official veterinary work other than that of the army. Its duties are concerned with horse, &c., breeding, cattle-breeding, horse and cattle disease, and veterinary education. The total cost of the Department in 1913–14 was £189,798 (excluding expenditure by local bodies).

Horse, Mule, and Donkey Breeding.—In those districts of the Punjab, Baluchistan, the United Provinces, and Sind, in which the breeding of equines specially flourishes, the entire control of horse, mule, and donkey breeding was, in 1903, transferred from the Civil Veterinary Department to the Army Remount Department, the work of the former being confined to cattle. Outside these districts the Civil Department controls breeding operations of every sort. Government stallions are allotted only to selected districts, but the stallions provided in the non-selected districts, partly from District Board funds and partly from provincial revenues, aided by grants from the Government of India, are controlled by the Department. Of these, there were on the register at the end of 1913–14, 86 horse, 102 pony, and 111 donkey stallions. The total number of mares covered was 15,542. Most of the horse stallions are in the United Provinces, and of the pony and donkey stallions in the Punjab.

Cattle Breeding.—Owing on the one hand to the decrease in the grazing areas and on the other to an increase in the more profitable occupation of cultivating crops, there has been a decline in cattle breeding in most provinces. As regards bovines, veterinary operations are directed towards improvement of the breeds, investigation of diseases, inoculation, and maintenance of veterinary dispensaries. There were at the end of the year 66 Government bulls and 874 bulls owned by district boards, the great majority of the latter being in the Punjab. There were six provincial cattle farms, one each in the United Provinces, Assam, Bombay, Central Provinces, Bengal, and Bihar and Orissa, besides the most important centre of cattle breeding, the Hissar Government Cattle Farm, in the Punjab, which, in consequence of the abolition of the Inspector-General of the Civil Veterinary Department, has been transferred to the Provincial Government. This farm contained 31 herd bulls and 1,507 cows, besides a large number of young stock and cultivation bullocks, and some mules, donkeys, and sheep. The aim is to maintain a herd of 1,200 cows, so as to meet present demands for ordnance bullocks and for bulls required by the districts and at the farm. A large number of cattle fairs and shows were inspected. Prizes are offered out of Imperial and local funds.

Disease.—(a) *Equines.*—Of 258 reported deaths from glanders, over one-half were in Bengal. There were 352 deaths from surra, mostly in Bombay, 48 from anthrax, and 502 from other contagious diseases not specified.

(b) *Cattle.*—Owing to the difficulty of collection, statistics of mortality from contagious diseases among cattle are defective. The number of reported deaths was 193,741, as against 187,231 in 1912–13. The deaths from rinderpest numbered 91,055, as against 92,846 in 1912–13. The United Provinces, Burma, and the Punjab were the severest sufferers. The reported deaths from anthrax numbered 12,900, of which Madras contributed 5,866. There were 32,218 deaths from hæmorrhagic septicæmia, chiefly in the Punjab (10,663), and 16,091 deaths from foot and mouth disease. Considerable progress has been made in breaking down the opposition of the people to inoculation, but, owing to an accident to the machinery at the Imperial Laboratory, Muktesar, the supply of anti-rinderpest serum proved inadequate

(Civil Veterinary Department.)

and the number of inoculations for rinderpest fell from 423,816 in 1912–13 to 309,461 in 1913–14. There were also 133,660 inoculations for hæmorrhagic septicæmia, and 110,955 for other bovine diseases. The rinderpest serum prepared at Muktesar is in great demand, both in India and Egypt, though, owing to the reason stated above, there was a shortage of the supply in 1913–14, and an enquiry from Rhodesia could not be complied with. A considerable amount of useful research work was carried on at the laboratory.

The camel specialist is at work on a safe cure for surra.

The progress of cattle-insurance schemes in Burma is noticed in the section dealing with co-operative credit societies in that Province.

Subordinate Staff.—Ninety-six veterinary inspectors and 911 veterinary assistants were employed in 1913–14. Of these, 622 assistants visited on tour 114,721 villages and dealt with 598,969 cases. The veterinary hospitals and dispensaries, at which 737,999 animals were treated during the year, numbered 393.

Veterinary Instruction.—The number of students who graduated in 1913-14 at the four veterinary colleges, viz., the Punjab, Bengal, Bombay, and Madras, and the Burma Veterinary School was 121. There were 340 students under training at the close of the year, as against 319 at the end of 1912–13. The Punjab College has the strongest teaching staff and the greatest facilities for teaching, and it turns out almost one-half of the graduates. Its course has been extended to four years. At present the classes are overcrowded. The staff is being increased by the addition of two European professors, and new buildings are to be erected. The Bengal College trains men for Bengal, Bihar and Orissa, Assam and Burma. The laboratories attached to the colleges were increasingly used. The demand for vernacular trained men as veterinary assistants still continues.

Archæological Department.

The primary function of this Department is the conservation of monuments of historic and architectural interest under the Ancient Monuments Preservation Act, but exploration is undertaken so far as means and opportunity permit. In the North-West Frontier Province excavations are in progress at Taxila, 20 miles north-west of Rawalpindi, where there are the sites of three successive capitals, dating from Alexander the Great to A.D. 300. During 1913–14 the stately temple of Jandial was totally cleared. In Patna the excavation of the ancient Mauryian capital of Pataliputra revealed most interesting resemblances to the buildings of Persepolis. In Burma excavation was carried out at Pegu and Yathemyo, and a considerable number of Talaing inscriptions were discovered. An epigraphist has been appointed to deal with the mass of material available in Burma. Conservation proceeded as usual among the great Mohamedan monuments of northern India and the ancient Hindoo remains of the West.

Medical Research Institutes.

In 1907 the Bacteriological laboratories in India were placed on a definite footing, and the Bacteriological Department now has 28 officers employed in the institutions named below or on special duty. In 1911 was instituted a Central Research Fund for research into epidemic diseases, with a government endowment of £33,000. Up to the end of 1913–14 the fund had received grants amounting to £100,000, and had sanctioned an expenditure of £93,000 on researches into kala azar, cholera, yellow fever, anti-malarial measures in various provinces, a contribution to the Imperial Bureau of Entomology, an elaborate experiment on water filtration at Benares, and a subvention of £6,667 towards the new Calcutta School of Tropical Medicine. The fund is under an Advisory Board, and the former Central Malaria Bureau has become a sub-committee of the latter. The Research Fund Association publishes a quarterly "Indian Journal of Medical Research."

At the Central Research Institute, Kasauli, vaccines and sera were prepared as usual both for Government and private institutions, pathological and other specimens were examined and four classes were held in bacteriological method and technique. A new teaching laboratory for the Bacteriological Class and suitable accommodation for the malaria section have been provided. The Bombay Bacteriological Laboratory,

(Medical Research Institutes.)

besides its functions as Provincial Laboratory for Bombay, is the headquarters of the Plague Research Commission. Besides its output of anti-plague vaccine (of which an increasing quantity goes to countries outside India), it conducted inquiries into Guinea-worm, tuberculosis, &c. It likewise prepared an exhibit illustrative of Bubonic Plague for the Ghent International Exhibition. At the King Institute of Preventive Medicine, Madras, the usual examination was conducted of pathological samples and samples of water supply. The work of the Pasteur Institutes is described on page 116.

CHAPTER XIV.

EDUCATION, LITERATURE AND THE PRESS.

(*For further details see Statistical Abstract for British India, Tables* 105 *to* 116.)

Education.

General.—Educational institutions in India are of two classes :—

(1) Those in which the course of study conforms to the standards prescribed by the Department of Public Instruction or by the University, and which either undergo Inspection by the Department, or else regularly present pupils at the public examinations held by the Department or by the University. These institutions are called "public," but may be under either public or private management. To the latter class, for example, belong those "aided schools," receiving grants from Government or from local or municipal boards, which occupy so important a place in the system of Madras, Bengal, and other provinces.

(2) Those which do not fulfil the above conditions, and are called "private."

The system of education operates, generally speaking, through three grades of institutions, viz. :—

(i) Primary schools, which aim at the teaching of reading, writing, and such elementary knowledge as will enable a peasant to look after his own interests.

(ii) Secondary schools, which are divided into English and Vernacular. Those in which English forms part of the regular course of study of all the scholars, or at least of all the scholars in the higher classes, are counted as English schools; if English is not taught, or is an optional subject only, they are reckoned as Vernacular.

(iii) Colleges, the students in which, having passed the matriculation examination of a University, are reading for the examinations required for a degree.

In addition to these there are various institutions of a special character, such as technical schools teaching arts and industries, engineering and other branches of applied science; law schools; medical schools and colleges; and normal schools for the training of teachers.

The general educational policy of the Government of India was declared at length in a Resolution published in March 1904, of which some account was given in the issue of this Statement for 1903–4; and more recently in the Resolution of 21st February 1913 of which a notice will be found in Chapter XXII. of the Fifth Decennial Statement published in 1913. Reference may also be made to the Sixth Quinquennial Report on Education in India, 1914.

Number of Students.*—The total number of scholars in public and private institutions in British India in 1913–14 was 7,518,147. This represents an increase in the quinquennium, 1908–9 to 1913–14, of 1,545,943, being at the rate of 25 per cent. Male scholars in public institutions numbered 5,823,215, as compared with 4,650,134 in 1908–9, while females numbered 1,019,621 as compared with 720,342. The percentage of male scholars in public institutions to male population of school-going age has increased during the five years from 25·15 to 29·8 and the percentage of females attending schools to female population from 4·0 to 5·4.

Number and classification of Schools and Colleges.—The total number of institutions in 1912–13 was 181,659, of which 164,591 and 17,068 were for males and females respectively. The total number of villages served by the schools was 570,098, and the number of towns, *i.e.*, places containing 5,000 inhabitants and upwards, was 1,597. Thus each institution for males served nearly four towns and villages, and each institution for females served 33 towns and villages. The number of students in

* These figures are to 31st March 1914.

each class of school or college, classified according to the description of education imparted therein, was as follows:—

	1908–9.	1912–13.
UNIVERSITY EDUCATION:—		
Arts Colleges:		
English	18,418	32,112
Oriental	868	1,419
Professional Colleges:		
Law	2,558	3,856
Medicine	1,498	1,461
Engineering	1,177	1,216
Teaching	438	637
Agriculture	255	284
Veterinary	—	181
SCHOOL EDUCATION, SPECIAL:—		
Schools for special instruction	129,761	197,183
SCHOOL EDUCATION, GENERAL:—		
Public Secondary Schools:		
High Schools	329,559	448,682
Middle English Schools	235,033	319,159
Middle Vernacular Schools	235,183	228,870
Private Advanced Schools	54,785	58,836
Public Primary Schools	4,420,891	5,268,893
Private Elementary Schools	550,722	610,554

Stages of Instruction in Public Schools.—The total number of scholars on the rolls of the general public schools, both secondary and primary, on the 31st March 1913, included 5,424,983 boys and 840,621 girls. Of these, 3,355,560 were in the Lower Primary stage reading printed books, while 1,513,491 were in a still lower stage in which they had not yet been taught to read printed books.

Results of University Examination.—There was an increase in the quinquennium (1908–9 to 1912–13) in the number of colleges from 172 to 185, and in the number of students from 25,212 to 41,166. The increase was particularly large in Bengal.

Of the students 414 were women, the largest numbers being 128 in Bengal and 120 in Bombay. There has been an appreciable increase in the number of students in the professional colleges during the quinquennium.

The following statement shows the number of examinees for the attainment of the University degrees named, the number passed, and the race or creed of the passed scholars in 1912–13.

	Number of Examinees.	Number passed.	Race or Creed of Passed Scholars.							
			Europeans and Eurasians.	Indian Christians.	Hindus.		Muhammadans.	Buddhists.	Parsis.	Others.
					Brahmans.	Non-Brahmans.				
Bachelor of Arts	5,160	2,954	31	119	1,429	1,060	216	20	56	23
Bachelor of Science	601	368	1	7	141	202	14	—	—	3
Bachelor of Law	2,140	1,258	2	16	535	527	140	3	22	13
M.B.	45	25	—	—	6	19	—	—	—	—
B.C.E.	34	16	—	2	6	7	1	—	—	—
Roorkee — Civil engineer	115	86	4	1	50	8	3	—	20	—
Roorkee — Electrical engineer.	—	—	—	—	—	—	—	—	—	—
Licentiate of Agriculture	78	54	—	1	28	16	6	—	—	3

The number of candidates for the B.A. degree continues to grow at a remarkable rate. In 1911–12 there were 4,358 candidates, and 2,477 passed. The percentages of passed to candidates was practically the same for the two years 1911–12 and 1912–13.

(Education.)

System of Management.—The new Department of Education in the Government of India was created in 1910. There is, further, in each province, save in Coorg, a department of Public Instruction, subject to the Government, the operations of which are co-ordinated with the general policy of Government. Subject to this general condition, each department under a Local Government advises as to educational needs, administers the funds allotted, inspects, examines, frames rules and prescribes curricula. Its controlling powers, however, are shared, as regards higher education, with the universities, and, as regards elementary education, with the civil authorities and the local and municipal bodies. The great majority of institutions are maintained by the boards or by private agencies, which in turn may receive aid either from the board or from the department. The inspectors, professors, and teachers are grouped in various services. The teachers are employed mainly in the higher institutions, and, even in these, represent only a small portion of the total number, the majority being in private employ. Nearly all the teachers in primary schools are board or municipal servants or work in aided institutions. The Government services are the Indian Educational, recruited in England, the Provincial, recruited by the Local Government, and the Subordinate, also recruited by the Local Government and like the Provincial consisting in the main of Indians. The Inspecting Agency is, with minor exceptions, included in the Government services. A beginning has been made in recent years of inspection for special subjects in the ordinary schools, *e.g.*, drawing, manual training, and also of a demand for medical inspection.

The civil authorities are concerned with education as being in general charge of all branches of administration in their jurisdiction; and the co-operation of the executive with the educational officer in educational work is at once beneficial and necessary. The bulk of elementary education is in the hands of municipal and district boards, which not only maintain schools but also disburse grants to schools maintained by private bodies or persons. In the discharge of their duties of control, including the closure of their own schools, the appointment and dismissal of staff and the disbursement of aid to privately managed schools, the boards are guided by rules issued by the Local Government. The curriculum is that prescribed by Government; and the scale of grants to aided institutions must be generally in accordance with the departmental rules. A cause for complaint is that the members of the district boards often have little or no knowledge of the villages where schools are situated and of the work done by these schools. Private agencies are a factor of great importance in the educational system, and include missions, Indian societies and committees, and individual managers, who are generally also the teachers. Thousands of elementary schools in Bengal are of the proprietary or " venture " type. All are eligible for grants provided they fill a need and serve a useful purpose, and they subsist partly by fees and subscriptions, partly by grants from public funds. As controlling agencies the Universities are of prime importance, since they frame courses, conduct examinations for diplomas and degrees, affiliate and inspect colleges, and prescribe the curricula in the upper classes of high schools preparing for the matriculation examination. Finally, there are a number of committees, text-book, visiting, ladies for girls' schools, and governing bodies and committees for the detailed control of individual institutions.

Female Education.—The ratio of girls to boys under instruction is about 1 to 6. Five years ago it was about 1 to 7. As regards creed, among Christians and Parsis the rates of girls to boys is about 1 to 2, among Buddhists and Brahmans about 1 to 5, and among Muhammadans and non-Brahmans about 1 to 7. As regards university education, the number of girls in Arts Colleges (318) is greater than in all the other colleges taken together. The number of girls studying in Medical Colleges (57) comes next.

Of the 35,255 girls attending schools for special education, 2,063 were in Technical and Industrial Schools, of whom 154 were Europeans and Eurasians, 1,265 Indian Christians, 425 Hindus, 107 Muhammadans, and 100 Buddhists. There were 207 girls in Medical Schools, the majority of whom were Indian Christians.

Cost of Education.—The total cost of the educational system is shared almost equally between public and private funds. By the former are meant provincial revenues (*i.e.*, the revenues of the Local Governments) and municipal or district board funds. The Imperial Government gives back part of the revenue which it receives by the occasional distribution of sums for set purposes, *e.g.*, for education; and there were large Durbar grants made in this way. Municipal and district or local boards levy cesses, but the income so resulting is generally increased by Local Governments,

either by equilibrium grants or by special grants. In general, the whole of the provincial expenditure on education is met from provincial revenues which are from time to time enhanced by imperial grants.

The total amount spent upon education increased during the period 1908–9 to 1912–13 from £4,400,000 to £6,053,000. The increase in fees is about 43 per cent., while the increase from provincial revenues and local and municipal funds is 46 per cent. The average annual cost of educating each pupil in the different schools and colleges in British India during 1912–13 was as follows :—

	Cost met from Provincial Revenues.			Cost met from Local and Municipal Funds.			Cost met from Fees and other Sources.			Total Cost.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Arts Colleges	4	4	5	0	2	4	6	8	9	10	15	6
Colleges for professional training	17	1	2	0	1	4	4	14	10	21	17	4
Secondary Schools	0	6	1	0	2	8	1	1	6	1	10	3
Primary Schools	0	1	5	0	2	5	0	2	4	0	6	2
Training Schools	8	1	1	1	0	7	2	7	3	10	8	11
All other special schools	0	12	11	0	2	2	0	10	8	1	5	9
Cost per each pupil in all institutions	0	3	8	0	2	5	0	5	7	0	11	8

Hostels or Boarding Houses.—There were in 1912–13, 3,081 hostels or boarding houses attached to colleges and schools with 119,378 boarders, as against 2,796 in 1911–12 with 107,333 boarders. The total expenditure rose in the same period from £364,800 to £414,733. The Government of India has recently made grants for hostels amounting to £900,000 capital and £33,330 recurring.

The following statement shows the number of boarders attached to each class of schools or colleges :—

	1912–13.
Arts Colleges	9,073
Professional Colleges	1,811
Secondary Schools	70,582
Primary Schools	24,610
Special Schools	13,302

The following is a short summary of some of the more interesting features of the year's record in the several provinces.

Madras.—In the Madras Presidency there were 952,035 and 248,214 male and female scholars in 26,018 and 1,443 primary schools for boys and girls respectively. Secondary schools numbered 364 for males (with 117,956 scholars) and 69 for females (with 10,201 scholars). In the 34 Arts and 3 professional colleges for males there were respectively 7,028 and 986 students. The figures for elementary education show a marked advance on the previous year, and the percentage of male pupils under instruction in Public Elementary Schools to the male population of school-going age increased from 29·1 to 31·1. The scheme for the reorganisation of Training Schools for Masters was given effect to during the year; and with a view to meeting the growing demand for qualified teachers, temporary training schools and classes were opened in which provision was made for the training of extra batches of students of the higher as well as the lower elementary grade. Further progress was recorded in all grades of female education. There was again a noteworthy increase in the number both of Brahman and of Muhammadan girls receiving secondary education. The percentage of female scholars to female population of school-going age rose from 7·2 to 8·8. Under the scheme for the development of the study of Indian languages a University Professor of Sanskrit and Comparative Philology was appointed, and sanction given to the appointment of four University readers in the Philology of Indian languages. The total expenditure on education for the year was £1,200,000, an increase of 14 per cent. on the amount for the previous year.

Bombay.—The total number of institutions of all kinds in the Bombay Presidency rose during the year under review from 17,120 to 17,914, and the number of persons receiving instruction in them from 987,685 to 1,029,017. Numerical progress was

(Education.)

naturally most conspicuous in the case of primary schools, the number of which rose by nearly 700 to 14,061, the attendances aggregating 847,706 as against 814,409 in the previous year. The year was one of great promise with regard to collegiate education. The University enjoyed the benefit of visits from Sir Alfred Hopkinson, Professor Ramsay Muir, and Professor Smithells, and the report of the first named, which embodies a series of important recommendations, was under consideration at the end of the year. Further progress was made towards the completion of the programme of improvement and development with regard to secondary education referred to in last year's report. An inspector of science was appointed in connection with the scheme for establishing a fully-equipped laboratory in every high school, and the appointment of an inspector of drawing was sanctioned. The number of secondary schools rose from 588 to 607, and the attendance from 80,144 to 84,547. Appreciable advance was made in connection with female education, the increase during the year in the number of female scholars being 10,000, or, roughly, 6 per cent. A notable event in the history of professional education was the opening of the College of Commerce, which entered on its career in encouraging conditions. The total expenditure on education rose from £1,023,180 to £1,063,548.

United Provinces.—Education continued to show satisfactory progress in the year under review, the total number of institutions having risen from 17,580 to 17,656, and that of pupils attending them from 788,298 to 819,472. The percentage of scholars on the population of school-going age rose in the case of boys from 19·82 to 20·51, and in that of girls from 1·65 to 1·81.

The stimulus given to primary education by the action of the Government of India in assigning large sums from Imperial revenues for its improvement continued to be felt during the year. The numbers of primary schools for Indian boys increased from 10,151 to 10,439, and it is satisfactory to note that of the new institutions no less than 193 were intended to teach up to the upper primary standard. The number of scholars attending primary schools increased from 547,354 to 566,033, and here, too, it is noteworthy that the bulk of the increase took place in upper primary schools. Out of the total number of schools 6,417 were managed by district and municipal boards, and of these nearly half were teaching up to the upper primary standard. The provision of teachers, however, was still inadequate, the total number for the province being 12,605, of whom 5,026, or 40 per cent., were trained. In the sphere of female education the dearth of competent teachers was comparatively as great as ever, but notwithstanding this drawback, there was a satisfactory increase in the number of institutions for the education of girls and in the number of pupils attending them. The technical and industrial schools in the province continued to do good work. The total expenditure on education from all sources rose from £807,976 to £855,339.

Punjab.—The year was again remarkable for great educational activity. The number of educational institutions in the province increased by over 600, and the attendance by nearly 34,000. More than 400 new school buildings were either erected or in course of erection. The percentage of scholars to the population of school-going age rose from 21·37 to 22·79 in the case of boys, and from 4·31 to 4·76 in that of girls; the attendance has practically doubled in the course of 10 years. As was to be expected, a very great development took place in primary education. Four hundred and sixty-nine new primary schools for boys and 84 new primary schools for girls were opened during the year, and the number of pupils increased by no less than 27,647, of whom 22,892 were boys and 4,755 girls, the corresponding increase for the previous year having been 20,669. Although there were 1,000 more primary teachers than in the previous year, the proportion of trained teachers increased, and there was ample evidence that owing to the more liberal pay now offered, the calling of teachers in primary schools was becoming a popular one. Secondary and collegiate education showed an equally remarkable advance, the increase in the number of secondary schools and pupils attending them having been unprecedented. There was still, however, a great dearth of capable secondary teachers. As regards university education, the courses of lectures delivered by University lecturers from England were a most successful innovation. The total educational expenditure rose from £561,385 to over £620,000.

Central Provinces and Berar.—Educational expansion was again rapid during the year under review, and many projects which owe their initiation to the large grants from the Government of India were either set on foot or advanced to a further stage

of development. Schools and scholars rose by 333 and 28,314 respectively, much the greater part of the increase occurring under the head of primary education. The lack of competent teachers was still very marked, but important reforms which, it was hoped, would soon remedy the deficiency, were inaugurated during the year. The pay and prospects of both primary and secondary teachers were greatly improved, and in the case of the former a pension fund was instituted. In the matter of higher education the need for an autonomous university for these provinces was recognised, and a committee was appointed to draft a scheme. The new engineering school at Nagpur commenced work in the course of the year.

Burma.—The year under review was one of steady progress in education. The number of public institutions increased from 6,662 to 7,066, and the attendance from 282,433 to 324,085. The increase in numbers was, of course, largest at the lower primary stage, but there was a noteworthy percentage of increase in the high school stage, while collegiate education showed an almost phenomenal advance, the attendance having risen from 344 to 453. The proportion of scholars to population of school-going age is high for Burma when compared with other provinces, and for 1913 the percentage for males rose to 43·48 and that for females to 11·42. There was a remarkable increase of 17,855 in the number of girls attending school, the corresponding figures for 1912 having been only 4,416. Among the special schools, commercial schools appeared for the first time, three having been registered in Rangoon with 203 pupils. The examination for these schools was held in connection with the Midland Counties Union of Educational Institutions, Birmingham. The elementary training classes for vernacular teachers referred to in last year's report were most successful. The total expenditure on education in the province during the year amounted to £410,313, as compared with £355,734 in 1912.

North-West Frontier Province.—The rapid progress made in the two previous years in education was more than maintained in 1913. There was a remarkable increase from 34,640 to 40,238 in the number of male scholars, while the number of girls attending schools showed a satisfactory rise from 3,832 to 4,207. A gratifying feature of this expansion of education was the increase by as much as 25 per cent. in the number of Muhammadans in primary schools. The most notable event of the year was the actual opening for work of the Islamia College and School. Being situated at a distance of more than 3 miles from Peshawar City, the institution is purely residential, and the demands for admission far exceeded the available accommodation. One important characteristic which distinguishes it from other institutions in the province is that religious education in the tenets of Islam is compulsory for the students. The provision of teachers to keep pace with the great increase of scholars presented in this province, as elsewhere, considerable difficulties. Proposals were submitted to the Government of India for the opening of a class for the training of teachers for Anglo-vernacular schools, and if the proposals are sanctioned the deficiency, so far as it relates to this branch of education, will, it is hoped, be gradually met. An interesting experiment was made during the year under review in the introduction of a simple system of school hygiene. Total expenditure increased from £64,146 in 1912 to £68,375 in 1913.

Assam.—With the assistance of the special grants received from the Government of India, rapid advance was made during the year 1913–14 in every branch of education. The total number of institutions of all kinds increased from 4,269 to 4,578, and the number of pupils attending them from 194,288 to 215,141. Although, however, the rise in the number of collegiate students from 360 to 442 was satisfactory from a statistical point of view, it is obvious that it will have to be greatly accelerated before the Assam Colleges can be regarded as fulfilling even their primary task, namely, the training of men for the occupation of the learned professions and the service of the State. To ensure a liberal supply of under-graduates, an efficient and extensive system of secondary education is, of course, necessary, and to satisfy this requirement, vigorous measures are being taken by the local government. Notably, in 1913, five aided schools were taken over by Government in pursuance of the policy of converting private into State schools. The greatest activity, however, was shown in the field of primary education. Fees were entirely abolished in vernacular schools, the pay of all teachers was largely improved, a first instalment of 25 lower primary schools with a specially liberal scale of remuneration for the staff was established, and a large number of new primary

(Education.)

schools of the ordinary type were opened. Female education likewise, notwithstanding an insufficiency of teachers, showed a satisfactory advance, the attendance having risen from 19,054 to 22,687, and the percentage of pupils to girls of school-going age from 3·79 to 4·6. Expenditure on education rose by over £28,000 to £155,219.

Bengal.—The province of Bengal having been reconstituted on the 1st April 1912, a comparison of the figures for 1912–13 and 1913–14 is now possible for the whole of the new administrative area. The total number of all classes of institutions decreased in the latter year from 42,903 to 42,835, while that of the pupils attending them increased from 1,718,623 to 1,747,608. Arts colleges continued to attract students in ever increasing numbers, the total number for 1913–14 being 14,746, or 1,850 more than in the previous year. In secondary education the year was chiefly marked by the decision to establish a residential secondary school for Indian boys on the lines of an English public school. Purely vernacular education continued to decline in favour, and its further maintenance in the intermediate stages seems to be impracticable without some concession as to the optional teaching of English in upper primary and middle vernacular schools. Lower primary education also received a set-back numerically, there being a decline of 17,716 pupils as compared with the previous year. The whole system of primary education in Bengal is at present under review, and it is hoped to evolve a satisfactory school course which, among other things, will put an end to the distinction obtaining between the curricula laid down for the eastern and western sections of the Presidency. The supply of teachers, both secondary and primary, was still very inadequate, but large expenditure was sanctioned during the year and will continue to be incurred in the future with a view to remedying the existing deficiency. Female education showed steady progress. The inspecting agency for girls' schools was considerably strengthened during the year. One urgent want, however, which is still unsatisfied is that of a women's secondary training college. The number of Muhammadan students in the upper stages of instruction remained low. Only in the primary stage was the percentage of Muhammadans under instruction satisfactory. The question of the establishment of a school of mines for Bengal and Bihar was referred to a committee, which submitted its report to Government during the year. There was an all-round increase of expenditure in 1913–14, the total for the year being £1,471,000 as against £1,351,000 for 1912–13.

Bihar and Orissa.—Educational matters in the new province of Bihar and Orissa are still in a somewhat fluid condition. During the first year of its existence the Education Department was engaged in stocktaking, and subsequently various conferences and committees were entrusted with the task of framing schemes for the development of different branches of education, which up to the end of the year under review had not been brought into operation, nor even in many cases sanctioned. It is not surprising, therefore, that from a statistical point of view little advance is as yet recorded. The number of boys' primary schools, for instance, has risen by only 105 to 22,509, the explanation being that during the years 1911–13 attention was to a great extent concentrated on paying larger salaries to the teachers. At the same time, pending the introduction of large schemes of educational reform, a great many individual improvements were effected during the year. A number of new school and college buildings were erected, and the staffs of all classes of educational institutions were considerably strengthened. With regard to the larger schemes, the report of the Committee on the subject of a university for Bihar, with which is bound up a great number of connected questions, chiefly bearing on collegiate education, was submitted to the local government in the course of the year, as was also the report of the Committee appointed to consider the question of Muhammadan education. Under the head of female education a rather remarkable advance was recorded. The total number of girls' schools rose from 1,858 to 2,249, and the number of pupils attending them increased by 9,906.

Literature and the Press during the Calendar Year 1913.

Bombay.—The number of publications registered in 1913 was 2,884, as compared with 2,605 in the previous year. The total increase is made up chiefly of an increase of 64 under the heading Language, 43 under Religion, 38 under Medicine, 34 under Poetry, and 18 under Philosophy. The other subjects show only a small

variation in number. English books rose from 107 to 121 and Marathi and Gujarati books increased by 19 and 47 respectively. The only notable book in English is *Premchand Rôychand*, by D. E. Wacha, a remarkably well written biography of the famous broker, and incidentally an account of the Bombay share-mania of 1863–65. In Marathi a fairly good translation of Shakespeare's *Julius Cæsar* was written by K. B. Belsare, and the well-known author Narayan Hari Apte produced a historical novel, written in simple and idiomatic style, which is based on the event of the second sack of Chitor by Sultan Bahadur of Gujarat. In Gujarati a work of a rather unusual type is *Pramad Dhanani Prabhata*, by D. N. Vakil. The style is simple and at times forcible.

Madras.—The number of works presented for registration during the year was the largest on record since the enforcement of the Books Registration Act of 1867, the total being 4,318, as against 4,098 in 1912. Religion was as usual the subject which had the largest number of books devoted to it. Travels and voyages were again unrepresented. As regards languages, Tamil once more occupied the first place, while English and Telugu were not far behind. There was a slight falling off under Arabic and Sanskrit, and an increase under Kanarese, Uriya, Konkani, and Hindustani. *Selections from the S'eva Folklore* in the Savara language may be considered as a publication worthy of note during the year under report. Other works deserving notice were *Shakespeare Kavimāmbum Perumpuyalum*, by T. B. Krishnaswami, the first of a series of translations of Shakespeare's dramas, and *Cholan Karikalan I.*, a well-written work of historical criticism. There were only four books of a political character, against nine in the previous year. All of them were unobjectionable.

Bengal.—The number of publications registered during 1913 was 4,083, as compared with 3,889 registered in 1912 in the province as now constituted. Though the quality of the literature received was, as a whole, marked by no unusual excellence, great activity was exhibited in the departments of biography, the drama, fiction, history, poetry, and religion.

In fiction and the drama the influence of politics appears to be gradually waning, and considerations of pure art are reasserting themselves. In dramatic literature the loss caused by the deaths of Babu Giris Chandra Ghosh and Babu Dwijendra Lal Roy has been severely felt, and showed itself in the absence of any work of superior merit during the year. The year's fiction was poor with the exception of one work, which, however, was of outstanding ability. It is a homely domestic tale of great pathos, entitled *Annapumar Mandir*, and the author was a Hindu widow named Nirupama Devi. Historical literature was well represented, the most ambitious work published during the year being a history in English of the civilisation of the world, entitled *Epochs of Civilisation*, by Pramatha Nath Bose. The first part of a Bengali lexicon, the first comprehensive work of the kind, was brought out during the year by Professor Jogesh Chandara Roy.

United Provinces.—The total number of publications issued during the year, 1,708, was practically the same as in the previous year, the largest returns being under the heads of poetry religion and language. There was a decrease in the number of books in English and Urdu, and Hindi remained by far the predominant language. The true historical spirit still seems to be lacking in the United Provinces, as is evidenced by the production of such books as the *Ten Teachers of the Sikhs* and the *Greatness of the Aryas*, in both of which the Hindus are glorified at the expense of the Musalmans.

The decay of Arabic learning is well exemplified by the year's publications. The only branch which was at all well represented is Muhammadan Law, and the most scholarly and careful piece of work in that domain—the publication of the text of the *Durr-ul-Mukhtar*, with an accurate English translation—was by a Hindu. Sanskrit studies, on the other hand, have been vigorously pursued. An example of the influence of European scholarship is afforded by the publication of a selection from the *Brahmanas* by Dr. Laddu, the object of which is to give in a convenient form passages of first-rate importance throwing light upon ancient beliefs regarding the Vedas, the Devas and Assuras, the castes, and the position of women in early society. The curious taste in fiction of a very large section of the Indian reading class is evidenced by the popularity of the novels of G. W. M. Reynolds, two more of which were translated into the vernacular during the year.

134466

(Literature and the Press.)

Punjab.—The aggregate number of publications during 1913 (1,642) was larger by 110 than that of the previous year, but as the quality of the vernacular literature produced was very poor, this is hardly a matter for congratulation. There was an increase of 119 in the number of original vernacular works. With regard to the language of publication, Punjabi for the first time took the lead, Urdu, with a decrease of 59, standing second. Poetry claimed the largest number of publications, and was followed at a considerable interval by religion. Books on art, history, and science showed a satisfactory tendency to increase, but biographies deteriorated both in quality and quantity, and there was not a single book on travels. In Hindi and Punjabi there were good versions of the *Mahabharata*, and a short history of Japan was published in the latter language. On the whole the literary output of the year was somewhat discouraging as to its quality.

Burma.—The total number of publications registered in Burma during the year was 362, as against 338 in 1912. There was thus an increase, but the number is less than that of 1910, when it reached 373. More than half the publications were works on religion, and these are written chiefly in Burmese and Pâli. There was a large decrease in the number of dramatical works, only five plays, one of which was in English, having been published. Only one biography appears on the list; it is a brief sketch of the life of Dr. Judson, the pioneer missionary to Burma. There was no important change in the language of the publications, but works in Bengali, Pwo-Karen and Yaungthu were added.

Assam.—The total number of publications was 49, as against 44 in 1912, of which 13 were classified under religion, and 4 under poetry, while 11 were periodicals. The books were, without exception, free from offence.

The general observations contained in last year's report apply equally to the output for 1913. The publications were few and insignificant, and it would be vain to look in them for an indication of positive tendencies.

Central Provinces.—There was a further decrease in the volume of the literary output of the Central Provinces and Berar during the year 1913, and its quality was not marked by any improvement. The total number of publications registered during the year was 97, as compared with 112 in the previous year. Of these, 8 were in English, 28 in Marathi, and 44 in Hindi. The year under review, like the preceding year, was singularly free from political publications, and there was no occasion to have recourse to the provisions of the Press Act of 1910. The number of religious publications (32) was lower than that of 1912. Of the thirteen books selected for special review by the Director of Public Instruction, none contained anything distinctive from an educational point of view. Among the non-scholastic publications four display an anti-Brahmin trend and afford further evidence of the reaction among the lower classes of Hindus against Brahmin pretensions which was noticed in last year's report.

CHAPTER XV.

LOCAL SELF-GOVERNMENT.

GENERAL. | DISTRICT AND LOCAL BOARDS.
MUNICIPALITIES. | PORT TRUSTS.

General.

Local self-government, municipal and rural, in its present form is essentially a product of British rule. Beginning in the Presidency towns, the principle made little progress until 1870, when it was expressly recognised by Lord Mayo's Government that "local interest, supervision, and care are necessary to success in the management of funds devoted to education, sanitation, medical charity, and local public works." The result was a gradual advance in local self-government, leading up to the action taken by Lord Ripon's Government in 1882–84, and to various provincial Acts passed about that time, which greatly altered the constitution, powers, and functions of municipal bodies—especially by widely extending the elective system—and which still form the basis of the provincial systems in force. At the same time, the resources and financial responsibility of municipalities were increased. Municipal committees now exist in most towns of any importance. In the rural districts local and district boards were established by Acts of 1883–5. The local boards are under the control of a general district board, or send delegates to a district council. The systems vary in different provinces, as a large discretion is left to the provincial governments. The elective principle has been adopted in varying degrees. There is also a smaller number of non-elective local bodies discharging similar duties in towns other than constituted municipalities and in cantonments. In the Punjab, United Provinces, Burma, Bombay, Central Provinces and Berar, and North-West Frontier Province certain provisions of the Municipal Acts are extended to small towns which are not fitted for the full responsibilities of municipal government, but nevertheless require organised measures for sanitation and other purposes. These, which are described as Notified Areas, must not be purely agricultural, and must not have a population exceeding 10,000. In the chief ports specially constituted boards or "trusts" have charge of harbour works, port approaches, and pilotage. Bombay and Calcutta also have "Improvement Trusts," distinct from the Municipal Corporations, for the purpose of clearing congested areas and making street improvements.

Municipalities.

(*For further details see Statistical Abstract for British India, Tables* 101 *to* 103.)

General.—The municipal bodies exist, raise funds, and exercise powers under enactments which provide separately for the special requirements of each province and of the three Presidency capitals, Bombay, Calcutta, and Madras. In the municipalities as a whole rather more than a half of the members are elected by the townsfolk under legal rules; in every town some, and in a few minor towns all, of the members are appointed by the Government. In almost every municipal body one or more Government officials sit as members. The number of Indian and non-official members, however, in every province largely exceeds the number of Europeans and officials. The municipal bodies are subject to Government control in so far that, generally speaking, no new tax can be imposed, no loan can be raised, no work costing more than a prescribed sum can be undertaken, and no serious departure from the sanctioned budget for the year can be made, without the previous sanction of the Government; and no rules or byelaws can be enforced without similar sanction and full publication; but, in view of the recommendations of the Decentralization Committee the question of according municipalities a larger measure of independence has recently been under consideration.

There were 712 municipalities at the end of 1912–13 (the latest year for which full figures are available), containing within their limits about 17 million people, or 7 per cent. of the total population of British India. Generally speaking, the income of municipalities is small. Their aggregate income amounted to about £5½ million, excluding loans, sales of securities, and other extraordinary receipts. About 40 per cent. of the total is provided by Calcutta, Bombay, Madras and Rangoon. Loans are incurred for water supply and drainage schemes, the cost of

(Municipalities.)

which is too large to be defrayed from ordinary revenues. Municipalities other than the above four get their loans chiefly but not entirely from Government. The sources of municipal revenue, apart from loans and Government contributions, fall mainly under the two heads, "Taxation" and "Municipal Property and Powers apart from Taxation." Of the taxes the most important are octroi duties, levied in the United Provinces, the Punjab, the North-West Frontier Province, the Central Provinces and Berar, and Bombay, and the tax on houses and lands, which holds the chief place in the other provinces, as well as in Bombay city, and also contributes a considerable share of the receipts in the provinces named above. These two taxes each yielded about one-fifth of the total income of municipalities in 1912–13. There are also water, conservancy and lighting rates, tolls on roads and ferries, taxes on animals and vehicles, and in some places a tax on professions and trades. Steps have been taken in some cases to abolish octroi and to substitute for it direct taxation. The other sources of income include cattle-pound receipts, rents of municipal property, such as markets and slaughter-houses (an important item in Burma), and fees of various kinds. The objects on which municipal funds are spent are, mainly, water supply, roads, hospitals, vaccination, conservancy, drainage, lighting, fairs and markets, and education.

The interest in municipal elections, and in municipal affairs generally, is not usually keen, save in a few cities and large towns; but, as education and knowledge advance, interest in the management of local affairs gradually increases. In most provinces municipal work is fairly well done, and municipal responsibilities are, on the whole, faithfully discharged, though occasional shortcomings and failures occur. The tendency of local bodies, especially in the smaller towns, is to be slow in imposing additional taxes, in adopting sanitary reforms, and in incurring new expenditure. Many members of municipal bodies are diligent in their attendance, whether at meetings for business or on benches for the decision of petty criminal cases.

The following table gives information as to the constitution of municipal committees, taxation, &c. in the chief provinces in 1913–14 (or 1912–13 where no later figures are available):—

	Population within Municipal Limits.	Number of Municipalities.	Total Number of Members.	By Qualification.			By Employment.		By Race.		Incidence of Municipal Taxation per head.	
				Ex-Officio.	Nominated.	Elected.	Officials.	Non-Officials.	Europeans.	Indians.		
Presidency Towns.											*s.*	*d.*
*Calcutta	896,067	1	50	—	25	25	4	46	16	34	12	0
Bombay	979,445	1	72	—	16	56	7	65	18	54	15	6
*Madras	518,660	1	36	1	15	20	5	31	12	24	4	7
Rangoon	284,938	1	25	1	5	19	3	22	13	12	14	0
District Municipalities.												
Bengal	1,978,115	111	1,526	108	531	887	190	1,336	161	1,365	2	5
Bihar and Orissa	1,179,855	55	772	78	225	469	100	672	105	667	1	4
Assam	125,552	18	197	37	98	62	50	147	37	160	2	4
*Bombay and Sind	2,354,932	158	2,310	387	830	913	457	1,673	137	1,993	3	3
Madras	2,096,585	62	961	77	392	492	137	824	146	815	2	0
United Provinces	3,000,069	86	1,181	93	211	877	175	1,006	134	1,047	2	5
Punjab	1,626,579	104	1,179	217	419	543	237	942	102	1,077	3	5
N.W. Frontier Province.	141,928	6	119	36	83	—	36	83	18	101	4	1
Central Provinces and Berar.	890,684	56	762	9	270	483	161	597	71	687	2	11
Burma	689,579	44	560	181	282	97	198	362	160	400	3	2

* Figures for 1912–13.

Bengal.—Calcutta.—The Calcutta Corporation consists, under the Act of 1899, of 25 elected commissioners and 25 appointed—four by the Bengal Chamber of Commerce, four by the Calcutta Trades' Association, two by the Port Commissioners, and 15 by the Local Government. There is a General Committee, with executive powers, consisting of the chairman and 12 members, who are selected from among the Commissioners. During 1913–14 the proposed amendments of the Calcutta Municipal Act were considered, and in the main approved, by the Corporation. The revenue

receipts during 1913–14 amounted to £696,618, and the payments to £688,753. The resulting surplus is about £4,000 more than in 1912–13. The financial position is thus firm, despite the fact that, since 1912, the Corporation has had to pay to the Improvement Trust a contribution amounting to over £50,000 a year. The transfer of the capital has not prejudiced the valuation of Calcutta, and assessments continue to rise. No loan was raised during the year, and the loan liability of the Corporation remained constant at £3,281,833. There is a constantly increasing activity in street improvements, 253 plans chiefly of this nature having been prepared in 1913–14. The total cost of these is estimated at over £1,000,000. New street alignments are being settled in consultation with the Improvement Trust. There was satisfactory progress in the improvement of Bustees; during the last eight years 11 miles of Bustee road have been constructed.

The Calcutta Improvement Trust came into being in January 1912. Seventeen improvement schemes are now under the consideration of the Trust and the Corporation, the most important being the improvement of the area round Kalighat.

Interior of Bengal.—The Bengal Municipal (Sanitary Officers) Act became law towards the close of 1913–14, and extensions are under consideration which will make it compulsory for municipalities whose income is not less than £667 to appoint Sanitary Officers. The number of municipalities (111) remained the same. General elections were held in nine municipalities and for the most part excited considerable interest. Assessments were revised in 34 municipalities. In 37 municipalities a rate on holdings is the principal form of taxation; in 70, a tax on persons; and in four both are in force. The total revenue for the year was £371,553. The large municipalities are, on the whole, progressive, but in the smaller ones ratepayers are inclined to be apathetic.

Assam.—There were 18 municipalities. The total revenue was £33,750, and the expenditure £34,039. There was a material extension of municipal governments in the Surma Valley. Tax on holdings is levied in 11 municipalities and on persons in seven. Attendance at meetings was poor.

Bihar and Orissa.—Assessment was raised in 21 municipalities, leading in some cases to substantial increases of revenue. Ordinary receipts amounted to £277,573 as against £172,475 in 1912–13, the increase being chiefly due to Government grants for waterworks and other sanitary purposes. Proposals are on foot for simplifying the system of auditing municipal accounts.

United Provinces.—Numerous changes in the working of municipalities have been introduced as a result of the report of the Decentralisation Commission and, in order to enable their recommendations to be carried out more completely, an amendment of the Municipal Act is under consideration. The total income of the municipalities was £666,564 and the total ordinary expenditure £600,431. Of the total income £239,400 was from octroi, which has been abolished, or will shortly be abolished, in about 38 towns. In most cases a tax upon circumstances and property has been substituted; other towns have tried a house tax or tax on trades. The proceeds of these new taxes have generally proved adequate. Some discontent, as was inevitable, has been aroused by the substitution of direct for indirect taxation. Of the total expenditure of £590,500 (the largest on record) £115,100 was capital outlay on water supply and drainage. Proposals are under consideration to substitute a terminal tax for octroi in the large towns, but for this it is necessary to secure the co-operation of the railways to collect the duties, and hence a delay has arisen. The number of non-official chairmen has been increased and the boards under them are working satisfactorily. An increasing interest is being shown in election procedure.

Punjab.—The powers of self-government provided in the municipal Acts were granted more freely in the Punjab than elsewhere. Owing, however, to the unsatisfactory working, lack of equity in assessing taxation, and expensive machinery of the smaller municipalities which have insignificant incomes, many municipalities have been converted into notified areas and small notified areas have been abolished. On the other hand new notified areas are now being established where new grain markets are springing up and important notified areas are being converted into municipalities. The number of the latter at the end of 1913–14 thus remained the same, viz., 104, and there were 90 notified areas. The municipal elections are beginning to arouse more interest, though marked enthusiam, except in the larger municipalities, is only found

(Municipalities.)

as a result of sectarian feeling. The best type of candidate, though willing to be appointed by nomination, is reluctant to face an electoral contest. The general tendency, however, is hopeful. The attendance of members and the working of committees are both satisfactory. The total income of the year amounted to £492,353, and the total expenditure to £410,609. Octroi is still the chief form of income, but proposals for a terminal tax have been received from several municipalities and such a tax has been sanctioned in Sargodha. A Town Planning Committee has met and is issuing model byelaws.

North-West Frontier Province.—The income fell to £51,631 and the expenditure rose to £48,768. The decrease in income was chiefly due to smaller Government grants. Octroi receipts also decreased. The elective system is not in force in this province, and members are nominated for three years.

Burma.—Rangoon.—The ordinary revenue of the Rangoon municipality rose to £280,570, and the expenditure fell to £294,680. Motor omnibuses were introduced during the year, an extensive programme of road improvement was undertaken with a view to bringing all the main roads in the town up to first class standard. The possibility of carrying out the road-programme by means of loans is being considered. The fire brigade has been thoroughly reorganised. The scheme for increasing the water supply has been initiated, although the arrangements for floating the requisite loan failed, the minimum rate having been fixed too high. The municipal debt at the end of the year amounted to £889,700.

Interior of Burma.—Elected members sat on 10 committees; one municipality where the elective system was in force was abolished. There were very few contests at elections. The ordinary income amounted to £314,336, and the expenditure to £287,790. The former increase was chiefly under the head of "grants and contributions"; the latter included increases under "public safety," "conservancy," and "hospitals." Attendance at meetings was poor.

Central Provinces and Berar.—The elective principle is in force in all but seven of the 56 municipalities. Attendance at meetings was generally satisfactory and interest was shown in many of the elections. The total income of the municipalities was £210,862—a decrease from the previous year due to the decrease in Government contribution, as income from municipal sources increased. The substitution in small towns of a terminal tax for octroi (which exists in 23 out of 43 municipalities in the Central Provinces, but not in Berar) is under contemplation. It already exists in one place (Wardha). Expenditure amounted to £209,254. All municipalities have balances in excess of the prescribed minima. A new Municipal Bill is under consideration. Proposals have been made to revise the taxation in certain comparatively wealthy towns in Berar where the incidence is unduly low.

Madras.—Madras City.—The principal taxes are a graduated tax on trades and professions, a tax of 10 per cent. on the annual value of buildings and lands, a water and drainage tax, and a lighting tax levied on the same basis, besides taxes on animals and vehicles, &c. The receipts (including opening balances) for 1913–14 were £460,850, and charges £343,970. The former figure includes a special grant from Government of £105,233. The new corporation office buildings were completed.

Interior of Madras.—In 58 of the 62 councils the elective system is in force, and the total number of elected members now exceeds that of non-elected. Eight councils consisted entirely of Indian members. Two more councils elected a chairman than in 1912–13. Receipts rose to £477,262. Expenditure rose to £425,990. An amended District Municipalities Act is being drafted in view of the recommendations of the Decentralization Commission.

Bombay.—Bombay City.—Bombay City is administered by a corporation of 72 councillors, of whom 16 are nominated by the Government, 36 are elected by the ratepayers, 16 by the justices, 2 by the Chamber of Commerce, and 2 by the University. The ordinary income in 1913–14 was £858,433, and the expenditure £803,262. There was a rise in income despite the reduction of the general tax on properties from $10\frac{5}{8}$ per cent. to 10 per cent. The permanent expansion of the revenue is estimated at £27,000, and of the expenditure at £34,000. There was again an unduly large amount of lapsed grants, due to over-estimation of requirements by various departments. Loans raised during the year aggregated £400,000, and the

total capital debt rose to £4,325,578, against which must be set sinking fund investments aggregating £918,830. Rateable assessments continued to rise. Lighting experiments are being carried out with a view to deciding the system to be adopted on the expiry of the contract with the Gas Company in July 1915. The expenditure on plague preventive measures from the outbreak of the epidemic in 1896, to the end of March 1914, amounted to £523,126, of which £96,700 was received from the Government, and the remainder met partly from loans and partly from municipal revenues.

The total area acquired by the Bombay Improvement Trust during the year was 359,352 square yards. The acquisition cases disposed of during the year numbered 488, and over three-fourths of them, absorbing over 90 per cent. of the total amount awarded, were settled amicably. The capital expenditure was £447,000.

A Bill is under consideration for the levy of an export duty on bales of cotton to provide funds for the schemes of the Bombay Improvement Trust.

Interior of Bombay.—During 1908–9, with the object of quickening interest in local affairs, Government relaxed its control by empowering 87 municipalities not specially excepted to select non-official presidents and by conceding to five city municipalities the privilege of electing two-thirds of the number of their councillors on their agreeing to appoint a Government servant as chief officer of the executive. During 1913–14 92 municipalities enjoyed the former privilege. This policy of extending the powers of local bodies is safeguarded by strict measures when such powers are abused. During 1913–14 the Ahmedabad and Rajapur Municipalities remained suspended and the Bassein Municipality was restored. Income rose considerably owing to liberal Government grants and increased trade activity. Expenditure decreased slightly.

District and Local Boards.

(*For further details see Statistical Abstract for British India, Table* 104.)

General.—In rural areas district and local boards perform the duties assigned to municipalities in urban areas. In each district, generally speaking, there is a board, subordinate to which are two or more local boards. In Madras the Union Committee or Panchayat is again subordinate to the Local Board. In 1913–14 there were 394 of these with 3,748 members. There are some Union Committees also in Bengal. The boards contain a varying proportion of elected members. Elected members form a large majority on the boards in the United Provinces and the Central Provinces and Berar. On all boards the great majority of members are Indians. The total number of all these boards in 1912–13 was 1,126. There are no district or local boards in Burma and no local boards in the United Provinces and the N.W. Frontier Province. The following table shows the general constitution of the boards in each province, the figures in italics relating to local boards, the others to district boards :—

(*Figures for* 1913–14 *save where otherwise stated.*)

Province.	Number of Boards.	Total Number of Members.	By Appointment.			By Employment.		By Race.	
			Ex-officio.	Nominated.	Elected.	Officials.	Non-Officials.	Europeans.	Indians.
Madras	25	772	124	294	354	296	476	133	639
	96	*1,629*	*98*	*867*	*664*	*388*	*1,241*	*74*	*1,555*
Bombay	26	3,690	651	1,395	1,644	725	2,965	204	3,486
	216								
Assam	*19*	*318*	*76*	*58*	*184*	*79*	*239*	*140*	*178*
*Bengal	25	509	132	168	209	153	356	91	418
	72	*852*	*56*	*413*	*383*	*93*	*759*	*36*	*816*
Bihar and Orissa	18	390	113	130	147	127	265	134	256
	41	*493*	*61*	*330*	*102*	*78*	*415*	*73*	*420*
United Provinces	48	897	3	270	624	250	647	97	800
Punjab	28	1,124	256	481	387	270	854	81	1,043
	13	*282*	*14*	*78*	*190*	*14*	*268*	*2*	*280*
N.-W. Frontier Province	5	219	51	168	—	51	168	26	193
Central Provinces and Berar	19	1,858	27	503	1,328	220	1,627	22	1,825
	80								

* Figures for 1912–13.

(District and Local Boards.)

The funds of district and local boards are largely derived from rates or cesses levied upon agricultural land over and above the land revenue. In addition, Government makes grants in aid to all boards, and in 1912–13 specially large grants were made from the special sums devoted in that year to education and sanitation. At the close of the year, Government further announced their intention of making assignments to the Provincial Governments to enable them to forego certain amounts which had hitherto been appropriated for provincial use from the cess on land, and, although this could not be done in 1913–14 as the necessary legislation could not be got through, the amount of these appropriations was reimbursed to the boards by Government. The boards have also other sources of income, such as cattle pound receipts, educational receipts, medical receipts, tolls from ferries and bridges, and contributions for specific purposes from the provincial funds. Their aggregate income (excluding debt items) in 1912–13 was £4,066,662. The expenditure of the boards is chiefly for roads and bridges, hospitals, vaccination, conservancy, drainage, water supply, primary education, markets, and resthouses.

Assam.—Income rose to £209,050, of which more than half consisted of Government grants. A Bill has been introduced giving the board extended powers and providing for the constitution of village organisations.

Bengal.—By the Bengal Laws Act of 1914 the provisions of the Bengal Local Self-Government Act of 1908 have been extended to the eastern divisions of the Presidency, and district boards have been empowered to grant technical scholarships. They may also incur expenditure for the relief of suffering in times of famine and distress. In some cases increased administrative powers have been granted. The Public Works Cess has been surrendered to the district boards, with the result that their revenue rose by £233,000 to £715,385, while their expenditure (owing to consequent increases under "Civil Works") rose by £135,000 to £572,155. There are now two district board railways working, one of which was opened during the year; the other was a source of £1,862 profit to the board. Six other railway schemes are in various stages of progress.

Bihar and Orissa.—The elective system was extended to two more districts. As in Bengal, the revenue and expenditure of the district boards was considerably enlarged by the surrender to them of the Public Works Cess (revenue £502,338, expenditure £385,623). As a condition of surrender of the Public Works Cess a minimum standard of expenditure on primary education and sanitation has been imposed. The growth of opportunities has been met by a growth of interest in their work among members of the district boards.

United Provinces.—A grant of £213,000 was made by Government in anticipation of the forthcoming transfer to the district boards of the proceeds of the rate hitherto appropriated to police charges. Other large grants, recurring and non-recurring, were made, and receipts rose to £807,387. Expenditure was £579,425 only, some of the grant having been received too late for expenditure during the year. In connection with these grants a thirteen years' scheme of development has been promulgated. In order to enable the boards to carry out their greatly expanded programmes, it is proposed to increase their staffs considerably and to extend the employment of whole-time secretaries. The delegation of work to sub-committees and local committees is being attempted, and Government has issued a model scheme for the purpose.

Punjab.—There are signs of keener interest in elections to district boards and in their working. This is due to the great expansion in the finances of the boards, whose income and expenditure has increased by nearly 50 per cent. in two years owing to large Government grants and the raising of rates. The system of decentralising duties by appointing sub-committees or allotting circles to members for supervision is also having an excellent educative effect. A proposal is under consideration to empower boards by legislation to levy cesses for light railway development. The income of the boards rose from £429,804 to £529,309—principally owing to large grants from Government, and the remission of the latter's appropriation from the land cess.

North-West Frontier Province.—There is no elective system in this province. The working of the district boards were on the whole satisfactory. The aggregate income of the boards was £36,499 and their expenditure £31,671. Sub-committees have

been appointed, and members of boards are allotted circles of their district for supervision. The system is reported to be working well.

Central Provinces and Berar.—In some districts the elections to the legislative council are beginning to stimulate an interest in the previous elections to the district and local boards. Public Works Department buildings and communications are being transferred to the care of the district councils and the subordinate staffs are being reorganised in consequence. The Divisional Local Fund Engineer Scheme was in force in all the divisions. The Government grants for Education and Civil Works were nearly £17,000 in excess of 1912–13. Income was £218,510 and expenditure £204,963.

Madras.—One-half of the members of the district boards are, as a rule, elected by the taluk boards. In 1909 the elective system was introduced for taluk boards, but of the 234 seats thrown open to election during 1913–14 only 79 were contested, and in 30 cases Government nominations became necessary for lack of candidates. Unofficial presidents are now nominated or elected in 22 taluk boards. The village union *panchayats* or councils have each not less than five members; they deal chiefly with sanitation, and the making and repair of roads, and in some cases they have the management of choultries, markets, and other local institutions entrusted to them by the taluk boards. On the whole the working of the local bodies was satisfactory. The income of the boards and unions, excluding debt heads and contributions from one district board to another, amounted to £1,328,833, and the expenditure to £1,094,322. The Tanjore and Kistna District Boards railways yielded net profits of 7·1 and 8·8 per cent. respectively on the capital outlay. A special railway cess for railway construction is levied in eleven districts.

Bombay.—One additional district board was created in 1913–14 owing to the formation of a new district. Many local boards (but no district boards) failed to hold the prescribed minimum number of meetings. Income rose to £541,855, an increase of £44,000, chiefly owing to increased Government grants for education, and the collection of suspended land revenue. Expenditure remained practically stationary at £516,332. Closing balances were largely in excess of prescribed minima, owing chiefly to the education grants, the spending of which was retarded owing to delays in acquiring sites for schools, preparation of plans, and scarcity of labour.

Burma.—There are no local boards in Burma. Their place is taken by District Funds in Upper Burma and District Cess Funds in Lower Burma, which are administered by the Deputy Commissioners of the districts. These funds had an aggregate income of about £286,600 and an expenditure of about £250,100 in 1913–14. Those in Lower Burma have the largest resources, as they include the proceeds of a 10 per cent. cess on the land revenue, and account for £198,700 of the expenditure, which was chiefly on education and public works.

Port Trusts.

(*For further details see Statistical Abstract for British India, Table* 186.)

General.—The administration of the larger ports is placed by various Acts in the hands of Port Commissioners, who are charged with the provision of suitable dock accommodation and other services necessary to shipping. They have wide powers, but are more subject than municipal bodies to Government control. Members of these Port Trusts, which include both Europeans and Indians, are for the most part appointed by the Local Governments, and are largely representative of the local commercial communities. Except in Calcutta the elected members are fewer than the nominated members. Port trustees are empowered, subject to the control of the Government, to levy dues on shipping and goods, to charge fees for services rendered, to contract loans for port improvements, to maintain the harbour and its approaches, and to erect warehouses, jetties, harbour lights, and docks for the convenience of traders and shipping. The chief ports, in which is carried on by far the largest part of the trade of India, are alone dealt with here. There are smaller ports, especially in Madras and Burma, where sums are raised yearly for expenditure on improvements.

Calcutta.—The income of the Port Trust for 1913–14 (£1,008,562) beat the record figure of the previous year by over £50,000. The expenditure was £1,044,097. The

(Port Trusts.)

deficit is due to debt charges consequent on the construction of capital works and the purchase of land to provide for future extension. The traffic at the jetties increases so fast that neither the construction of new berths nor the improvement of arrangements has sufficed to relieve the congestion, and the report of a Committee which was appointed to deal with the whole subject of the Port of Calcutta and its approaches is now under consideration. The cost of the entire programme proposed is estimated at nearly £3,000,000, and comprises, besides the extension of berthing and warehouse accommodation, the construction of a new entrance to the dock system and of a new railway yard. To meet the cost certain financial proposals either have been sanctioned or are under consideration. These include the charging of interest on cost of major works to capital during construction, the extension of the period of repayment of the old Kidderpore Dock loan, the raising of further capital up to £1,333,000, and certain enhanced charges. The capital debt of the Trust at the close of the year was £6,125,870. Debentures were issued during the year for £466,667. The work in progress or completed includes the construction of new berths, jetties, and sheds, the extension of railway accommodation, the acquisition of additional dredging plant, and the provision of acetylene gas buoys for lighting the river between Mud Point and Saugor.

Bombay.—Here again the revenue of the Port Trust reached a record figure of £658,654, being a surplus over working expenditure of £109,967. The expenditure on capital account was £1,028,554, the greater part being spent on the Alexandra and Hughes Docks and the Mazagaon–Sewri reclamation. Four per cent. debentures were issued during the year for £533,000 and the debt of the Trust amounted at the end of the year to £8,644,383, of which £2,010,005 is due to Government, while the remainder consists of foreshore securities and debenture loans. A railway yard is being constructed at Wadala. The Mazagaon–Sewri reclamation scheme has got to the surfacing stage. The surtax of 10 per cent. on pilot fees has been continued.

Karachi.—The revenue for 1913–14 rose from £305,740 to £323,073, but the rise was due to a sale of land. Otherwise the revenue (which in the previous five years had risen 50 per cent.) would have shown a decrease, due to reduction in wheat exports. The expenditure (£261,390) rose somewhat. The resources of the port proved ample for the traffic. A new dredger is being set up in connection with the West Wharfage scheme. A loan of £34,000 was raised during the year, and the capital debt at the close amounted to £1,524,288.

Rangoon.—Receipts were £345,652 and expenditure £246,869; the former show an increase due to expansion of trade and to an increase of the port dues from 3 to 4 annas a ton; the latter has also increased owing chiefly to increased cost of living. The question of the financial position of the port has given rise to some apprehension in the past, but it is now considered satisfactory. Debentures for £233,000 were raised during the year, and the debt (after deducting the amount at the credit of the Sinking Fund) was £1,785,847. The river-training works were completed during the year and have proved a success. The total expenditure on the work up to the end of the year was £884,526, against a sanctioned estimate of £1,000,000. A new dredger is being procured for the Hastings Shoal.

Madras.—Receipts amounted to £81,700 and expenditure to £64,600. A loan of £333,000 from Government has been sanctioned, chiefly with a view to deepening the harbour and running a quay along its western side. £80,000 was received from this source during 1913–14. Of the quay 750 feet out of a contemplated 3,000 has been completed and is in use. A new coal yard and new harbour offices are also under construction.

CHAPTER XVI.

CONDITION OF THE PEOPLE.

VITAL STATISTICS.
PLAGUE.
SANITATION.
HOSPITALS, DISPENSARIES, AND ASYLUMS.
EMIGRATION AND MIGRATION.
PRICES.
WAGES.
FAMINE OR SCARCITY.
GENERAL REMARKS.

Vital Statistics.

(*Detailed information on Vital Statistics, Sanitation, &c. is contained in the annual Report on Sanitary Measures in India, which is published as a Parliamentary Paper, and in the Statistical Abstract for British India, Tables* 103–4 *and* 198 *and* 199.)

General Population. Registration.—The statistics given below are based on the 1911 census figures. Although improvement in registration is being steadily effected, there are still serious defects in some areas. The facts are nearly everywhere collected by an illiterate agency (usually by village watchmen in rural areas), and accurate figures, especially of the causes of death, are unobtainable. It is more difficult, especially in towns, to obtain information about births than about deaths. The actuarial reviews of the returns of the censuses of 1881 to 1901 show that the registered birth and death rates are understated, and, as registration improves, the registered rates must tend to approximate to the calculated rates. The high Indian birth-rate is due, not to exceptional fertility, but to the large proportion of married women. The high infantile death-rate is partly due to the weakness of the children of immature and ignorant parents, the prevalence of Malaria, and faulty midwifery, but to some extent it is only apparent, being calculated on imperfect returns of births.

Birth and Death Rates.—The population of the areas in which births and deaths were registered was 238,323,365, according to the census of 1911, and the number of births registered in 1913 was 39·37 per mille, compared with 38·95 per mille in 1912, and an average of 38·37 per mille in the five years 1908–12. The total number of deaths was 6,845,018 = 28·72 per mille, as compared with 29·71 per mille in 1912 and 32·77 for the five years 1907–11. This was the lowest rate since 1898. The rates for the provinces are given in the following table :—

Province.	Birth Rates (per mille).		Death Rates (per mille).					
			1912.			1913.		
	1912.	1913.	Urban.	Rural.	Total.	Urban.	Rural.	Total.
Delhi	—	44·8	43·7	33·0	39·3	44·2	35·1	40·0
Bengal	35·3	33·7	24·5	30·1	29·8	24·9	29·7	29·4
Bihar and Orissa	42·5	42·1	30·0	31·0	31·0	27·4	29·2	29·1
Assam	32·2	33·1	20·8	25·1	25·0	21·2	27·8	27·7
United Provinces	45·4	47·7	34·4	29·6	29·9	39·4	34·5	34·8
Punjab	45·3	45·4	31·9	26·1	26·6	35·7	29·7	30·2
N.W. Frontier Province	37·1	36·2	22·7	23·5	23·4	24·3	24·7	24·7
Central Provinces and Berar	48·2	49·3	47·6	41·8	42·3	30·9	30·2	30·3
Madras	30·9	32·2	28·6	23·8	24·3	26·2	20·8	21·4
Coorg	26·32	25·9	64·1	36·8	38·4	47·6	32·6	33·5
Bombay	35·0	35·0	41·5	33·8	34·9	32·9	25·4	26·7
Burma, Lower	31·7	31·7	37·2	24·4	26·0	32·9	22·2	23·6
Burma, Upper	33·0	34·2	44·1	27·5	29·0	39·3	26·5	27·6
Ajmer-Merwara	47·08	43·2	—	—	38·3	—	—	25·9
Total	38·95	39·3	33·1	29·4	29·7	31·0	28·5	28·7

The most striking feature was the diminished death-rate in the Central Provinces where cholera and malaria had prevailed in 1912, and in Bombay where cholera showed a marked decrease. The increased death-rate in the United Provinces and

(Vital Statistics.)

the Punjab was due chiefly to "fevers" which had shown an exceptionally small mortality in the previous year. The reduced birth-rate in Bengal is attributed to the rise in prices.

The excess of births over deaths ranged from 19 per mille in the Central Provinces to 4·3 per mille in Bengal. The mean percentage of male to female births ranged from 126·5 in the North-West Frontier Province to 104 in Bihar and Orissa.

The greatest mortality occurred in December, while the lowest was in February. Infantile mortality was highest among the major provinces in Upper Burma, the Central Provinces, and the United Provinces; the total rate per mille for all India was 192 male and 197 female; strenuous efforts are being made to reduce these figures which, though still excessive, show a welcome decrease.

The following table gives the ratio of deaths per mille in cities of British India whose population exceeded 150,000 in 1911:—

—	Death Rate per Mille.		—	Death Rate per Mille.		—	Death Rate per Mille.	
	1908–12 (Mean Rate).	1913.		1908–12 (Mean Rate).	1913.		1908–12 (Mean Rate).	1913.
Calcutta - -	29·0	29·2	Howrah -	28·4	30·5	Agra - -	29·7	22·0
Bombay - -	37·5	32·7	Benares -	58·2	50·9	Ahmedabad -	53·5	39·6
Madras - -	40·6	40·3	Delhi - -	43·7*	40·0	Allahabad -	21·9	17·4
Lucknow -	61·8	47·0	Lahore - -	33·7	38·1	Amritsar -	50·4	40·9
Rangoon - -	38·2	39·4	Cawnpore -	53·0	45·1			

* Rate for 1912.

Chief Diseases.—There are three main classes of fatal disease: specific fevers, diseases affecting the abdominal organs, and lung diseases. Intestinal and skin parasites, ulcers and other indications of scurvy widely prevail. Much of the sickness and mortality is due to deficient powers of resistance and to insanitary habits and surroundings. The table below shows the number of deaths from each of the principal diseases recorded in British India and the death-rates per 1,000, during the three years from 1911 to 1913. With regard to special diseases, cholera is much less prevalent than formerly. In 1913–14 it occurred chiefly in Bengal and Bihar and Orissa. Plague forms the subject of a separate section. When reference is made to "fever" in India, malarial fever is generally understood, but many causes of death and many diseases much more fatal than malarial fever are included under the heading. The fever death-rates, as usual, varied greatly, ranging in the major Provinces from 23·9 in Bengal to 6·7 in Madras. The malaria section of the Indian Research Fund Association is housed at Kasauli, but has a field-laboratory in Delhi where classes are held. In 1913, 58 doctors underwent instruction at these classes. Anti-malarial operations and mosquito surveys are being carried out by special officers in practically all the provinces. It has been proposed to send a small deputation to study anti-malarial measures in Italy. The measures adopted to fight malaria are the sale of quinine at cheap rates and the extirpation of mosquitos by such methods as drainage, petrolage and jungle clearing.

Years.	Small-Pox.	Cholera.	Fevers.	Dysentery and Diarrhœa.	Plague.	Respiratory Diseases.
1911 - - - -	58,538	354,005	4,207,356	253,636	733,582	223,822
	·25	1·48	17·63	1·06	3·07	0·94
1912 - - -	89,357	407,769	3,936,085	292,216	263,037	247,736
	·37	1·71	16·49	1·22	1·10	1·04
1913 - - - -	98,155	294,815	3,983,112	246,578	198,456	237,229
	·41	1·24	16·71	1·03	0·83	1·000

Vaccination.—The total number of vaccinations performed among the civil population during 1913–14 was 9,877,086, being a slight decrease from the previous year's work. Of primary vaccinations 96·95 per cent., and of re-vaccinations 69·66 per cent., were successful: about 36·19 per mille of the population were successfully vaccinated. The number of infants successfully vaccinated was 46·83 per cent. of the number under a year old. Arm-to-arm vaccination has of late years been steadily replaced by the use of pure calf lymph. All the larger provinces have, or will shortly have, their own calf-lymph depôts.

Plague.

The present epidemic of plague in India first broke out at Bombay in August 1896, and, as the marginal table shows, it has been responsible for a heavy rate of mortality since that date. In 1907 the deaths from plague attained the highest total yet recorded, viz., 1,315,892, for India as a whole, the number in British India alone being 1,166,223, or 5·16 per mille. In 1908 the mortality declined enormously, falling to 156,480, the lowest total since 1900. In 1909 there was once more a relatively low mortality, viz., 178,808 deaths, or fewer than in any year since 1900, excepting 1908. In 1910 and 1911 there was a severe recrudescence, especially in Bengal, the United Provinces, and the Punjab. In the latter part of 1911 and in 1912 the virulence of the epidemic abated, and the 1913 figures show a still further fall. In 1914 there was a rise, owing to a recrudescence of the disease in Bombay, and in 1915 there has been a serious recrudescence in the Punjab.

1896–97	57,543
1898 -	116,285
1899 -	139,009
1900 -	92,807
1901 -	282,027
1902 -	576,365
1903 -	883,076
1904 -	1,143,993
1905 -	1,069,140
1906 -	356,721
1907 -	1,315,892
1908 -	156,480
1909 -	178,808
1910 -	512,605
1911 -	846,873
1912 -	306,488
1913 -	217,869
1914 -	295,897*

* Preliminary figure.

Plague is so local in its visitations that all general and unanalysed statistics are likely to prove misleading. Many parts of India have been almost entirely free from its ravages, and in the greater part of the country the outbreaks cannot be described as having been severe or disastrous. On the other hand, general statistics tend to conceal the severity of the distress caused by the disease in particular districts. In some parts of the Punjab and the United Provinces the mortality has been specially severe.

The reasons for this uneven incidence are at present somewhat obscure. The mortality in Eastern Bengal and in Assam has been at no time appreciable, largely, it is believed, because the habits of the people and the structure of their houses are unfavourable to the breeding of rats, while in the Madras Presidency and in Burma the epidemic has never reached serious dimensions. How far the comparative immunity of Madras is due to a policy of segregation and surveillance, and how far to climatic conditions is undecided.

The Advisory Committee on Plague Investigation in England and the Plague Commission in India, whose constitution has been described in former issues of this Report, have concluded their investigations, which have led to most important results. The main facts in regard to the mode of propagation of an epidemic and the life history of the plague bacillus have been ascertained, and rational methods of attack have thus been made possible. A popular summary of the principal conclusions arrived at was given in "The Etiology and Epidemiology of Plague" (price 5*d.*), published early in 1908. It is now generally agreed: (1) That epidemic bubonic plague in man is directly dependent on epidemic plague in rats; (2) that the vehicle of contagion between rat and rat and between rat and man is the plague-infected rat-flea; (3) that bubonic plague is not directly infectious from man to man; and (4) that the life of the plague bacillus outside the bodies of men, animals, or fleas is of short duration. In large towns plague may persist through the year, but in villages such persistence is exceptional, and the recurrence of an epidemic is probably due to fresh infection.

In the light of the knowledge and experience now acquired it is possible to deal satisfactorily with the disease when effective control can be established over the sanitary conditions; and in the case of the native army and in limited areas such as jails there has been remarkable success. But attempts to establish such control over large areas would involve too great an interference with the habits, prejudices, and sentiments of the people, and the application of measures of proved utility must depend upon the particular circumstances of each locality and upon the character of its inhabitants. In the face of great practical obstacles, three principal measures for combating plague are now adopted:—

(1) The temporary evacuation of quarters in which plague is prevalent. This has proved to be the most effective way of removing man from contact with infected rat-fleas. Government is ready to supply money and material to provide temporary dwellings and to alleviate the discomfort and distress which must accompany evacuation of quarters, a matter, of course, in which no pressure can be exerted, and in regard to which the wishes and even the prejudices of the people must be consulted.

(Plague.)

(2) Inoculation with the prophylactic fluid. The efficacy of this remedy on the occasion of an outbreak has been placed beyond doubt; it is freely resorted to, and encounters little popular prejudice, when the presence of plague is felt; but as a general or permanent remedy it is obviously of limited utility.

(3) The systematic destruction of rats (for which purpose smoking has been found an admirable method, as it kills the fleas as well as the rat), the diminution of the food supply to which they have access, and, in the course of time, such improvement in the structure of houses and grain-stores as shall render them reasonably rat-proof.

An account of the various Research institutions appears in Chapter XIII.

Sanitation.

General.—The Third All-India Sanitary Conference was held at Lucknow in January 1914. The reorganisation and enlargement of the Sanitary Department proceeds apace. From the date of the constitution of the Department of Education (which deals with Sanitation) in 1910 up to May 1914, the Supreme Government had made grants to local Governments for sanitary purposes amounting to £368,200 recurring and £2,708,266 non-recurring, besides grants to District Boards. Every major province has its sanitary commissioner, and (except for the N.W. Frontier Province) its sanitary engineer. In addition there were in May 1914, 26 deputy sanitary commissioners, 16 deputy or assistant sanitary engineers, and nearly 150 health officers. In May 1914 the Government of India issued a comprehensive resolution on Indian sanitary policy. The following paragraphs give some account of the chief sanitary works undertaken in the various provinces in 1913:—

Delhi.—Several improvements were effected in the Municipal water supply: the whole of the Conservancy arrangements were reorganised. A complete survey of the levels of the City was undertaken with a view to drawing up a complete drainage and sewerage system.

Bengal.—In the Mofussil Municipalities nearly $\frac{1}{3}$ of the total expenditure was on sanitary works, the chief items being £25,000 on the Hooghly-Chinsurah waterworks, £4,300 on construction of drains in Howrah, and £4,000 on improvements to buildings in the Darjeeling bazaar. An additional Assistant Sanitary Engineer was appointed, sketch projects for water supplies were drawn up, or were under preparation, for 12 places, detailed schemes were supplied for six towns, and ten were in course of construction. Three large sewage schemes are in various stages of progress (Cossipur-Chitpur, Dacca, and Darjeeling). Three non-official members were appointed to the Sanitary Board.

In Calcutta the average daily supply of water rose from $55\frac{1}{2}$ to $58\frac{1}{2}$ million gallons a day. Full pressure is maintained for 7 hours a day, and the question whether, either by checking waste or by increasing the supply, it will be possible to maintain a constant full pressure is under consideration. Further improvements in the pumping plant are in progress. About one-third of the Tolly's Nullah drainage scheme has been completed, and the Fringe Area scheme has been practically completed with the exception of the connection with the Manicktollah pumping station.

Assam.—The municipalities spent 36 of their expenditure on sanitation. It is considered that expenditure on conservancy is inadequate, and the Sanitary Board are considering the question. Waterworks schemes are contemplated or in progress in seven towns. A general scheme is being formulated for the improvement of the rural water supply.

Bihar and Orissa.—An Assistant Sanitary Engineer has been appointed. Fourteen sketch water-supply schemes have been prepared. The Gaya and Monghyr waterworks were completed and opened. Six sewage schemes were being prepared or in progress. The Sanitary Board was re-constituted with a view to accelerating work. Type plans and estimates for minor waterworks for small communities were prepared by the Sanitary Engineer.

United Provinces.—Sanitary village boards have been instituted in selected villages. Forty-five per cent. of the municipal income was on sanitary works, in which considerable activity was shown. The chief works were water and drainage works in Benares,

waterworks at Hardwar and Agra, and experiments in tube wells at Cawnpore. Final sanction was accorded to ten schemes and schemes are under preparation for 16 towns. An assistant sanitary engineer has been appointed.

Punjab.—The year was one of special activity. The sanitary policy of the province has been fixed and defined. Resolutions were issued in respect of rural sanitation and the creation of a sanitary service in municipal towns. Sanction was accorded to projects and schemes involving an expenditure of £190,000. Extensions of sewage and water supply are in progress in Simla, schemes are under consideration for underground sewage in Amritsar and Lahore, and there are projects in various stages in four other places.

North-west Frontier Province.—The chief allotments of the Government grant to this Province were for water supplies at Kohat and Bannu and drainage at Abbottabad and Dera Ismail Khan. The sanitary problem of Peshawar is still troublesome and the services of an expert are required. A small sanitary service was inaugurated during the year.

Central Provinces and Berar.—Forty-three per cent. of the municipal income was spent on sanitation. The sanitary programme for the year was a comprehensive one. Of the ten detailed projects being considered by municipalities, the chief are the Jubbulpore drainage project and the Amraoti water project. The Nagpur sewerage system and the Wardha surface drainage project progressed well. A grant of £4,000 was made for village water supplies. The re-constitution of the Sanitary Board has given a marked impetus to sanitary projects.

Madras.—46·6 per cent. of income was assigned for sanitary expenditure. Twenty-three towns are provided with water-supply schemes, another has been sanctioned, and 16 are under investigation. Drainage schemes are in progress at Madura and Vellore, and are under investigation in 29 other towns. Rules were prepared for the laying out of extension sites. The programme of the Sanitary Engineer comprised the preparation of detailed plans and estimates for 17 major schemes and the investigation of 28 major schemes. Experiments are in progress for the protection of village wells from infection in places liable to cholera.

The general scheme for the main drainage of Madras City has been partly sanctioned. Various measures for improving and extending the water supply were in progress. The total expenditure on drainage in the city was £43,000, and on water supply, £121,000.

Bombay.—The principal allotments by Government were to the Bombay Improvement Trust for slum improvement and water supplies at Ahmedabad, Jalgaon and Ahmednagar. Seven new projects were sanctioned, 35 were in progress, and 19 were under consideration. Sanitary surveys on a uniform plan have been completed for the great majority of the towns in the province. The Village Sanitary Boards are doing good work in keeping the village clean, though hampered by lack of funds. The Sanitary Board of the province was re-constituted, and comprises a non-official member.

In Bombay City the new pumping machinery at Love Grove started work, and amended plans were prepared for the new low-level sea outfall sewer.

Vessels for the Red Sea pilgrim traffic were cleansed and freed from rats under the direction of the Bombay Port Health Officer. The out-going pilgrims, who numbered 13,401, were medically inspected and their clothing and bedding thoroughly disinfected before embarkation. 10,587 voluntarily underwent vaccination.

Burma.—Thirty per cent. of the municipal and local income was spent on sanitation. The chief Government allotments were for works at Mandalay, Yamethin and Monywa. Seven water schemes and four drainage schemes were drawn up by the Sanitary Engineer.

Hospitals, Dispensaries, Asylums, &c.

The following table gives figures for Indian hospitals under three heads. The institutions grouped under Heads (1) and (3) are, generally speaking, for the general public. Those under Head (2) are for special classes of persons, such as railway servants, policemen, &c.:—

(Hospitals, Dispensaries, Asylums, &c.)

	(1) Civil Hospitals and Dispensaries (State Public, Local Fund and Private-aided).			(2) State Special and Railway Hospitals.			(3) Private Non-aided Institutions.		
	No. of Institutions.	No. of In-patients.	No. of Out-patients.	No. of Institutions.	No. of In-patients.	No. of Out-patients.	No. of Institutions.	No. of In-patients.	No. of Out-patients.
1912 -	2,733	492,798	28,956,763	826	93,350	2,154,284	669	51,799	4,774,387
1913 -	2,820	515,062	30,032,547	851	98;171	2,331,969	697	57,252	4,828,357

During 1913 an electrical annex was added to the Medical College Hospital in Calcutta and it has been decided to build a new eye hospital. Work was commenced on the new School of Tropical Medicine. A medical school is being established at Nagpur, the new hospital in connection with King George's Medical College, Lucknow, was opened, and in Bombay the equipment of civil hospitals is being brought up to date. In Bengal a Medical Registration Act was passed; similar Acts have since been passed in other provinces. The system of exacting fees from well-to-do persons who use hospitals is being tried in Bengal, the Central Provinces and the Punjab. From Assam, Bihar and Orissa, the Central Provinces, and Burma a dearth of sub-assistant surgeons is reported, despite improvements in pay. Many provinces are paying attention to increasing the supply of women doctors, and in the Punjab the Ludhiana School of Medicine for Women is being assisted by a Government grant.

There are five medical colleges (Bombay, Madras, Calcutta, Lahore, and Lucknow), the students in which, numbered in 1913, 2,080, including 101 women. There are also 15 medical schools, the students in which numbered 2,126. There is an X-ray institution at Dehra Dun where two classes of instruction were attended in all by 37 students. A branch installation has been opened at Delhi and another has been approved for Simla.

Pasteur Institutes.—There were Pasteur Institutes for anti-rabic treatment at Kasauli (Punjab) and Coonoor (Madras). The number of patients treated in the former in 1913 was 3,980 as against 3,548 in 1912, the corresponding figures for Coonoor being 1,293 as against 1,240. The establishment of a Pasteur Institute at Rangoon has been sanctioned.

Lunatic Asylums.—The treatment of lunatics at asylums prevails on only a small scale in India, where insanity is less prevalent than in European countries. The census of 1911 showed an increase of nearly 22 per cent. in the number of insane since 1901. The number admitted into asylums in 1913 was 2,327, as against 1,931 in 1912. The total asylum population of the year was 8,472. A new asylum has been opened in Bombay.

Leper Asylums.—There are many leper asylums, among which may be mentioned the Madras Government Leper Asylum, the Matunga Leper Home, Bombay, the Trivandrum State Leper Asylum, and the Calcutta Leper Asylum. There are also many asylums or homes, frequently under some sort of Government supervision, including about 50 asylums of the Mission to Lepers. The census of 1911 showed an increase in the number of lepers to 109,094, compared with 97,340 in 1901, and the proportion works out to 35 lepers per 100,000 of the population.

Emigration and Migration.

(*For further details see Statistical Abstract for British India, Tables* 196 *and* 197.)

Emigration.

Emigration from India, so far as it is brought under the cognizance of Government, is mainly regulated by Act XVII. of 1908 and the Rules issued under its provisions. Emigration to Ceylon, to the Straits Settlements, and for employment under Government only in British East and Central Africa is, however, excepted from the restrictions of the Act. By this Act, natives of India are permitted to emigrate, under contract to labour for hire, only to such countries as have satisfied the Government of India that

sufficient provision is made in them for the protection of Indian immigrants; and a similar protection is extended to natives of India engaged to emigrate, individually or in small parties, to work as artisans, entertainers, servants, &c. Emigration, otherwise than under contract to labour or work in one of the above capacities, is not controlled by legislation. Emigration under the Act is now confined to certain British possessions chiefly in the West Indies and to Surinam. Natal was removed from the list in 1911 and Mauritius in 1912.

During 1913 Messrs. James McNeill, I.C.S., and Chimman Lal visited Trinidad, British Guiana, Jamaica, Fiji, and Surinam, in order to inquire into the condition of Indian immigrants in these colonies. Their report was presented to Parliament in 1915.*

Calcutta.—There were five emigration agencies at work during 1913 at Calcutta, but at the end of 1913 the emigration agencies at Calcutta for Trinidad, Fiji, Jamaica, and Mauritius were amalgamated with that for British Guiana. At the same time a central agency was established at Benares. The total number of labourers requisitioned fell from 10,447 in 1912 to 5,167 in 1913. The number supplied to the several colonies in 1912 and 1913 is shown in the margin. The number of emigrants supplied to all the colonies except British Guiana exceeded the demand. The excess in the case of Jamaica was due to the late despatch of 513 labourers requisitioned for 1912; while in the case of Fiji it was due to the shipment of 226 emigrants to make up a shortage in the number supplied from Madras. The number of recruiting licenses issued (excluding re-issues) was 1,211, as compared with 1,406 in 1912; 48 licenses were cancelled. The total number of emigrants registered during the year was 9,171, giving an average of 10 emigrants per recruiter, as against 11 in the preceding year. This number was contributed by the different provinces in the following proportions:—United Provinces, 73·66 per cent.; Punjab, 10·2 per cent.; Bengal, 7·37 per cent.; Bihar and Orissa, 7·16 per cent.; Ajmere and the Central Provinces, 1·58 per cent.

Adult Labourers supplied to—	1912.	1913.
British Guiana	2,313	1,241
Trinidad - -	2,550	1,189
Jamaica -	1,409	800
Fiji - -	801	990
Surinam - -	1,154	1,675
Total - -	8,227	5,895

The number of emigrants admitted to the Calcutta depôts was 8,171, or 2,423 less than in 1912. 651 were rejected subsequently to registration as unfit to emigrate. The percentage of deaths in the depôts and outside hospitals increased from ·22 in 1912 to ·34 in 1913, owing perhaps to the general unhealthiness of the year and the percentage of rejections increased from 10·09 to 13·33. The percentage of desertions increased from 0·81 to 2·76. The number that actually embarked was 6,121 as against 8,529 in 1912. They were distributed as follows:—Demerara, 1,276; Trinidad, 1,236; Jamaica, 824; Surinam, 1,773; Fiji, 1,020. The total number shipped included 1,632 women and 245 returned emigrants who re-emigrated. The deaths on the ships carrying emigrants numbered 19.

The number of emigrants who returned from the several colonies was 3,551, and their ascertained aggregate savings amounted to about £42,900. The average savings per head were about £24 for Fiji, £10 for Demerara, Jamaica, and Surinam, £9 for Natal and Trinidad, and 2*s.* 6*d.* for Mauritius. Over 60 per cent. brought back no savings.

There was a slight increase in the average amount remitted by resident immigrants in respect of the colonies of British Guiana, Trinidad, Mauritius, and Natal and a decrease in respect of Surinam and Jamaica. The average was again highest in the case of Natal (13*s.*), but this probably includes remittances from traders, &c., as well as labourers.

Madras.—The total number of emigrants under the Emigration Act regulations was 2,266, as against 2,546 in 1912. Emigration in 1912 was solely confined to Fiji and British Guiana. 1,192 emigrants returned from Natal, 216 from Mauritius and 125 from Fiji.

As regards non-regulated emigration, the number of passengers to the Straits Settlements rose from 107,842 to 117,783, the high wages offered on the rubber plantations being doubtless the chief attraction. Passages to Ceylon rose from 183,002 to 190,059. Emigration to Burma increased.

* Cd. 7744 and 7745.

(Emigration.)

Bombay.—The number of emigrants shipped from the port of Bombay under the Indian Emigration Act rose from 250 to 258. Of these, 171 were bound for British East Africa and 77 were workers for the Anglo-Persian Oil Company at Mahommerah. From Karachi 334 emigrants (mostly Punjabis) left for Uganda, and 103 for the Persian Gulf. A number of other emigrants left the coast districts for South Africa. The Surat district alone reported 1,079 such departures, the voyagers being for the most part the wives and children of established emigrants.

Migration.

Assam.—Labour for the Assam tea-gardens, and in certain mills, &c. of the Province, is still recruited partly under an indenture system authorised by the Assam Labour and Emigration Act of 1901, but, for some time past, an increasing proportion of the immigrant labour has been engaged under ordinary contract, and Government has gradually withdrawn successive districts from the operation of the Act. The Bill referred to in last year's Report was not proceeded with and fresh proposals for amending the Act of 1901 and supervising the recruitment of labourers are under consideration. The total labour population at the end of March 1914 was 846,569, representing an increase of 24,834 on the figures for the preceding year. There was a further decline in the number of "Act" labourers, who at the end of the year numbered 9,995, as against 11,366 in 1912–13. The number of immigrants was 58,869, as against 59,873 in 1912–13. Of the 45,849 adults who immigrated, 42,073 were free labourers. There was a substantial increase in immigration from the plains districts of the United Provinces and Bengal and from the Central Provinces, the rise in the latter case being due to the unfavourable nature of the season there. Recruitment from Madras decreased by more than half. The health of the coolies during transit was again good, the number of deaths being 32, the majority being due to cholera. The number of proved cases of fraudulent and irregular recruitment was 46. The rate of mortality was 24·7, the same as in 1912–13. Eight complaints of ill-treatment were lodged by coolies against employers, of which all but two were dismissed. The relations between planters and villagers are reported to have been generally good. The upward tendency of earnings was maintained, and the tea garden coolie is able to add largely to the amount of his nominal income by private cultivation and the enjoyment of such privileges as free fuel and grazing.

Prices.

(*For further details see Statistical Abstract for British India, Tables* 209 *to* 215.)

General.—The rise in the prices of commodities in India during recent years has been the subject of much discussion. The marginal table of prices during the 12 years to 1913 has been compiled from Government returns showing the index numbers of the prices of: (*a*) 11 articles imported; (*b*) 28 articles consumed in India or exported; (*c*) food-grains. The prices under (*a*) and (*b*) are wholesale, and under (*c*) retail. The index number of each year represents a simple average of the separate price ratios of the selected articles. In showing the variations the prices of 1873 are taken as 100.

Year.	Index Number for Articles imported.	Index Number for Articles consumed or exported.	Index Number for Food-grains (Retail Prices).
1873 - -	100	100	100
1902 - -	86	113	141
1903 - -	88	103	126
1904 -	93	104	117
1905 - -	96	116	147
1906 - -	105	139	179
1907 - -	116	145	180
1908 - -	106	151	231
1909 - -	99	133	195
1910 - -	109	127	168
1911 - -	113	136	161
1912 - -	117	145	189
1913 - -	117	154	199

After 1900, a year of severe famine, the tendency of prices for articles of Indian produce was, for several years, downward. The prices of imported articles steadily rose from 1902 to 1907, while a sharp and rapid rise in the prices of articles of Indian produce, especially food-grains, began in 1905. This rise was accentuated in 1907 and 1908 by the widespread failure of crops in Northern India. In 1909 and 1910 there was a general decline in prices, and foodstuffs continued to fall till 1912. During the agricultural year, 1912–13, the price of agricultural produce in all provinces showed a general tendency to rise, and this tendency continued on the whole in 1913–14, although in Bombay and Madras

prices of food-grains fell. They are still, however, greatly above the average. In Bombay it is stated that better internal communications and the entrance of India into the world's commerce minimise the effect of the season on prices. In the Central Provinces, and still more in the United Provinces, agricultural conditions were unfavourable and prices rose all round in consequence. Landholders whose land revenue assessments have been settled for long periods, and cultivators who hold land at fixed rentals, reap an advantage from high prices. It is probable that the trading classes benefited by the rise in prices, and there is reason to believe that owing to the enhanced demand for labour, due to industrial activity, the advance in wages has kept pace with the rise in great industrial centres. But where wage rates are more or less customary, or where incomes are more or less fixed, as in the case of pensioners, public and private employees, and the professional classes, the increased cost of living is a serious matter. Extra allowances, known as grain compensation allowances, have been made on a large scale to Government servants to cover the cost of dearer food.

Wages.

(*For further details see Statistical Abstract for British India, Tables* 206 *to* 208.)

Quinquennial wage-censuses have been established for the different provinces, and the results of the first of these censuses, taken in 1911, were summarised in the Moral and Material Progress Report for 1912–13. The general tendency in most provinces is for wages to rise gradually in response to the gradual economic development of the country and the consequent demand for labour.

In Bombay this tendency is particularly noticeable. During 1913–14 labour remained as scarce as ever, and even in famine districts there was no fall in wages: in some of the districts affected labour was even scarcer than usual owing to the migration of the people, and sufficient labour could not be found for big public works. It is noted that the migrating labourers, on their return, are sufficiently well off to pay their land revenue readily. There is a general complaint among cultivators as to the scarcity of agricultural labour, and they are beginning to see the necessity for adopting labour-saving devices. In Bihar, also, a tendency is noted for labour to migrate into the coal-mining and metalliferous districts of Singbhum and Manbhum. In Bengal there was a good demand for labour, skilled and unskilled, which compensated for the rise in prices: the same applies to Madras and Burma. In the Central Provinces, in spite of an unfavourable agricultural season, wages ruled high, and there was ample employment in mines, factories, and irrigation works. In Burma, the presence of rubber plantations and mining undertakings has enhanced the standard of wages locally.

Famine or Scarcity.

In the United Provinces the failure of the 1913 monsoon, followed by poor and unseasonable cold weather rains, led to a widespread failure of crops affecting an area of 18,200 square miles and a population of 6 millions, but the prosperity of the preceding years had enabled the population to develop a far greater staying power than on previous occasions of famine, nor was the rise in food prices so marked. Government made loans to cultivators amounting to over £1,250,000, besides suspending land revenue and sanctioning remissions amounting to over £717,000. The necessity for direct measures of relief did not arise till December, which is considerably later than on previous occasions of famine. The cost of direct relief operations to Government, including provision of cattle-fodder, was about £382,000, a far smaller figure than in the famine of 1907–8, although the estimated loss of food-grains was almost as great. The Public Works Department, the civil authorities, and district boards arranged for the carrying out of numerous projects with famine labour. These comprised construction of roads, tanks and irrigation works and the reclamation of ravine land —all works of undoubted utility. Gratuitous relief amounted to £80,600; it was given principally to persons incapable of working. A marked feature of the famine was the extreme scarcity of fodder, which was met chiefly by concession rates for the carriage of fodder on railways and the supply of hay from the forests. Much good work was done by non-official efforts, and a charitable fund was raised to the amount of £27,424. The total cost of the famine to Government is estimated at £820,000, as against £2,130,000 in 1907–8. Good rains in July and September 1914 finally relieved the situation and ensured a good kharif crop.

(Famine or Scarcity.)

In Bombay there was scarcity in the Sholapur District and parts of Poona, Bijapur and Satara, but, owing to the extraordinary mobility of the working classes, it was unnecessary to open relief works. Doles were granted to village servants whose presence in the village was indispensable and to destitute persons who were unable to emigrate. The only other famine measures were provision of cheap fodder, grants for water supplies, loans and suspensions and remissions of land revenue

In some districts of the Central Provinces crop failures caused distress, which was met by prompt measures of relief, and in Bengal considerable damage was done by floods.

General Remarks.

Bengal.—The agricultural and labouring classes are prosperous, as the harvests have been good, and, while the cultivator benefits by the high prices now obtaining (especially for jute), the labourer finds in rising wages a compensation for them. Middle-class people, however, with small fixed incomes are suffering from the greater cost of living. The province suffered from disastrous floods during 1913–14.

Bihar and Orissa.—Here, as in Bengal, considerable distress was caused by floods. Health conditions were on the whole satisfactory. The economic development of the provinces proceeds slowly; important mining and metallurgic industries have been established in Chota Nagpur. The efforts of the missionaries are having a good effect in raising the standard of life among the aboriginal tribes.

Assam.—The plains districts of the Surma Valley suffered from floods, and here and in the North Cachar hills relief had to be given to the people. Immigration from Eastern Bengal and Nepal continues.

United Provinces.—The unfavourable agricultural conditions naturally affected the state of trade, and the health of the people, although considerably better than the average of previous years, was not so good as in 1912. Industrially, a noticeable feature is the growing adoption of mechanical power for small manufacturing concerns.

Punjab.—Owing to two good harvests the prosperity of the agricultural population has been well maintained; even in the south-eastern districts, which shared the adverse conditions of the United Provinces, there was no severe distress. Wages were high and the year was a healthy one.

North-West Frontier Province.—The agricultural season was fair, and prices of food grains were easier than in 1912–13. There was a keen demand for labour; a rise in income tax collections as well as in the volume of litigation, indicates advancing prosperity.

Central Provinces and Berar.—In spite of an unfavourable season the condition of the people was, on the whole, satisfactory; the exceptionally fine harvest of the spring of 1913 enabled the people to meet the strain of bad harvests. A dull marriage season and the restriction of credit consequent on the bank failures of 1913 did not prevent the year from being one of industrial prosperity.

Burma.—The agricultural year was a prosperous one. The death-rate fell, and labour was in increasing demand. Trade increased, and there has been a steady advance in the number of people employed on the larger industries. Rubber plantations and mining enterprises are having a good effect on the economic condition of the population.

Madras.—Agricultural conditions were on the whole good, and in many respects the people are adopting improved agricultural methods. Power is being extensively used for irrigation, and there is an increase in the number of mills for decorticating ground-nuts and milling rice. Although wages are high and labour is in demand, emigration continued on as great a scale as before, and there are no signs of real industrial development. Foreign trade showed a gratifying increase and public health was good. There are signs that the population in some districts are awakening to the importance of sanitation.

(General Remarks.)

Bombay.—The agricultural season was, generally speaking, good, and where the crops failed the people saved the situation by temporary emigration. The failure of certain banks in Northern India had a prejudicial effect on credit, and thereby damaged the mill-industry; but the financial crisis was followed by gradual recovery, and the year taken as a whole was an active one for trade. The scarcity of labour in the presidency and the constant tendency of wages to rise has already been dealt with; the increasing cost of manual labour is leading to a substitution of machine power. Public health, which had been unsatisfactory in 1912, showed a great improvement in 1913, the death-rate from plague and cholera, showing a decline, while the year was distinctly less malarious than usual.

CHAPTER XVII.

ARMY AND MARINE.

(*For further details see Statistical Abstract for British India, Tables 70 and 187 to 195.*)

Army.

The sanctioned establishment of the army in India for 1913–14 and its actual strength on 1st April 1914 were as follows :—

	Sanctioned Establishment.	Actual Strength.
Troops under the orders of the Commander-in-Chief in India :		
British officers	5,017	5,001
British warrant and non-commissioned officers and men	73,323	73,155
Indian officers, non-commissioned officers, and men	160,313	150,574
Troops not under the orders of the Commander-in-Chief* :		
British officers	9	9
Indian officers, non-commissioned officers, and men	24,466	23,077
Total, 1913–14	263,128	251,816
„ 1912–13	263,555	251,761

In 1913–14 seven battalions of Indian infantry and one battery of Indian artillery were employed in the colonies and in China. One mountain battery of Royal Garrison Artillery was employed in Egypt. There was an Indian contingent in Somaliland, and detachments of infantry and cavalry were employed in Persia.

The sanctioned establishment of the Native army reserve was 36,046 and its actual strength on 1st April 1914 was 34,295, as against 33,712 on 1st April 1913.

The number of Volunteers in the whole of India on 1st April was as under :—

	1913.	1914.
Enrolled strength	41,083	41,925
Efficients	33,830	39,240
Reservists	3,178	2,955

The net expenditure on the army (exclusive of Military Works and Special Defence Works) in 1913–14 as compared with that in 1912–13 was as follows :—

	1912–13.	1913–14.
	£	£
Effective charges	15,231,375	15,462,240
Non-effective charges	3,117,348	3,123,493
Total	18,348,723	18,585,733

During 1913–14 the more important objects to which special funds were allotted were as follows :—The purchase of rifles, the re-armament of artillery, and the acquisition of land for the new cantonment at Delhi. Survey operations on the North-East Frontier and operations for the suppression of the arms traffic in the Persian Gulf were continued. Progress was made in the improvement of lines for Indian infantry and cavalry.

* Including Imperial Service Troops.

(Army.)

Health of the British and Indian Armies.—During 1913 the death-rate in the British Army in India was the lowest on record, but there was a rise in the admission rate, owing to prevalence of malaria, sandfly fever, and dengue, and to the admission of ear diseases, which in previous years would have been treated chiefly in barracks. There was a striking improvement as regards enteric. Over 93 per cent. of the troops have been inoculated. The following table is of interest :—

	Inoculated.	Non-inoculated.
Number of men who have had enteric - - - -	682	544
„ „ „ not had enteric - - -	65,344	4,014

Combining enteric and paratyphoid figures, the following were the admission and death-rates per mille :—

	Inoculated.	Non-inoculated.
Admission rate - - - - - -	2·1	5·5
Death rate - - - - - - -	·15	1·76

Besides inoculation, the elimination of " carriers " and improved sanitary conditions are the causes of the decline of enteric. Malaria continues to be the dominating cause of inefficiency in European troops in India; the admission rate rose from 82·4 to 125·5 per mille, owing to epidemics in northern India. The systematic survey of stations where malaria prevails has been most successful where undertaken, and further measures of this kind are urgently called for. Admissions for dysentery rose slightly, and admissions for ear-diseases more than doubled owing to a change in practice. Venereal disease for many years has shown an almost uninterrupted decline, and in 1913 the admission rate per mille (52·5) was the lowest yet recorded. Invalidings home showed an increase.

For the Indian Army both death-rate and admission rate were the lowest on record. The chief cause of sickness was, as usual, malaria, the admission-rate from which rose from 89 to 100·4 per mille, the increase being confined to the northern stations. Pyrexia and respiratory diseases and sandfly fever were also important causes of sickness. Pneumonia, as usual, was the chief cause of mortality. Tubercle of the lungs, though it is being reduced, still claims a high mortality, especially among Gurkhas. Anti-enteric inoculation is making progress among Indian troops, over 13,000 having been inoculated.

A table of admissions, &c. is appended :—

	Ratio per Mille of Strength.					
	British Troops.			Native Troops.		
	Average 1908–12.	1912.	1913.	Average 1907–11.	1912.	1913.
Admissions into hospital -	638·4	547·9	580·5	594·5	547·5	531·7
Constantly sick - - -	60·3	28·9	29·7	21·3	20·1	21·4
Deaths - - - -	6·1	4·6	3·3	5·7	4·4	4·0
Invalids sent home - -	9·2	6·7	7·5	5·6	4·6	5·3

Military Works.

The net expenditure on military works in 1913–14 amounted to £870,693. There was also an expenditure of £16,384 on Special Defence Works. The corresponding figures for 1912–13 were £815,217 and £9,267.

Marine.

The net expenditure on marine services amounted to £423,303 in 1913–14, as against £392,259 in 1912–13. In this amount are included the cost of the Royal Indian Marine and the contribution towards the expenses of His Majesty's ships employed in the Indian seas.

On the 31st March 1914 the Royal Indian Marine consisted of three troopships and six other sea-going vessels, three inland vessels, three flats, and a number of small steamers, launches, &c. There was an establishment of 104 executive officers, 83 engineer officers, 63 warrant officers, and 12 assistant surgeons of the Indian Subordinate Medical Department; and the native crews of the vessels (seamen, artificers, and others) numbered, in all, about 1,900 men.

CHAPTER XVIII.

FRONTIERS AND NATIVE STATES.

Frontier States.

Baluchistan: Frontier and Native States.—Notwithstanding the general unrest in Afghanistan itself, the districts of Baluchistan lying along the Afghan frontier were unusually quiet, and even the yearly crop of frontier raids and cattle-lifting was exceptionally small. The only serious occurrence directly attributable to the disorder across the border was the kidnapping of a Levy Thanadar and four district levies from Loiband by the notorious Luni outlaw Jalai. As Baluchistan had hitherto been free from the kidnapping of Government servants, this raid caused considerable sensation, but confidence was speedily restored by the prompt measures taken against the raider, which resulted in the immediate restoration of the five men kidnapped. On the districts, too, bordering on Persia the positive anarchy prevailing in that country failed to have any appreciable effect. The unrest, however, in Persia and Afghanistan was to a certain extent reflected in an increased activity of the traffic in arms. The measures taken in Muscat and the Gulf have, it is true, effectually crippled the supply, but the increased demand caused by the prevalence of disorder naturally raised the price, and thus provided an additional stimulus to traders to try to run the gauntlet.

The harvest was for the most part excellent and the country prosperous. Imports from Afghanistan increased by £25,000, while exports decreased by £7,000. In the trade with Persia, on the other hand, imports decreased by £11,000 and exports increased by £15,000. The total value of the land trade with India was higher by £200,000 than in 1912–13. The coal-mining industry showed a steady advance, the output exceeding that of the previous year by 10,000 tons. The oil potentialities of the province attracted considerable attention.

Dry farming experiments were continued during the year, and it was hoped to begin demonstration work on the Zamindars' land in 1914. The results hitherto obtained indicate that a very material saving of irrigation water will probably be effected. The possibility of cotton cultivation was also practically tested, and the development of the fruit industry showed further progress.

There was a satisfactory general advance in education, there being 68 public schools and 3,158 scholars, as against 59 schools and 2,874 scholars in the previous year.

The Jirga system worked admirably during the year, as may be inferred from the fact that of the 1914 decisions which came before the agent to the Governor-General on appeal or revision, only 7 were reversed.

Both in Kalat and Las Bela the year was noteworthy for the inauguration of important reforms in the administration. In Kalat His Highness the Khan not only took the important step of reviving his ancient council of Sardars, but also succeeded in reorganising the finances of the State and placing them on a sound footing. In Las Bela, likewise, the question of financial reform was seriously taken up by the Jam, and there is now every prospect of a vigorous development of the hitherto neglected resources of the State, which in the event of an exploitation of its potential oil-fields is likely to come into more general notice. In Kharan further quiet progress was made under the guidance of the young chief's guardian, and the State shows every promise of a return to a condition of order and prosperity.

North-West Frontier Province.—Instances of tribal hostility were confined to two tribes of the Peshawar Border. The Yusafzai of Buner raided China village in the Peshawar district, killing seven British subjects, and Balagarhi, where they murdered two. A military force was sent into Buner, and the matter was settled by the imposition of a fine on the Buner Jirga, which was immediately paid. The other tribe that gave trouble was the Ambahar Utman Khel, which committed a number of serious offences in the Peshawar district, the most important being a raid on Takht Bai, for which the tribe was heavily fined.

Other noticeable events, of a non-tribal character, in the Peshawar district were the attacks by certain Afghan raiders on the Jahangira Road and Khairabad railway stations in December 1913. In the former four railway servants were murdered, and in the latter the assistant station master was carried off. This officer was subsequently released, but, notwithstanding a strong protest addressed to the Amir, none of the offenders were apprehended.

(Frontier States.)

The districts of Kohat and Bannu suffered from the effects of the continued mal-administration and consequent lawlessness in the neighbouring Afghan district of Khost, the residents of which (many of them outlaws from British territory) committed numerous isolated raids across our border. In the encounters which took place between raiders and their pursuers nearly the whole gang of the notorious outlaw Zarwali were killed or captured. The situation is difficult owing to the recent weakening of the Amir's authority in Khost; in the meantime the British authorities have done what they could by arresting all Khostwals found on our side of the border, and this action has undoubtedly had a good effect.

The tragic death of Major Dodd, political agent, Wana, and of two British officers at the hands of a Mahsud, orderly of the former, occurred on April 12th, a few days after the close of the year under report. The murder merely exemplified in a startling way the want of stability so often to be discerned in the Mahsud character; for the murderer had during his ten years' service with Major Dodd experienced nothing but kindness.

The work of the militia corps of the Province maintained the high standard of former years. The murder of Captain Butler by a Bhitanni sepoy at Wana was clearly an act of temporary insanity, and neither the Bhitanni clan nor the Southern Waziristan Militia were involved. The work of the Southern Waziristan Militia was as arduous as ever, and the duties of the Northern Waziristan and the Kurram Militia were also very heavy owing to the chaotic conditions in Khost.

The Frontier Constabulary completed the first year of its existence, and even in that brief period proved its superiority over the defunct Border Military Police. The useless elements of the old regime have not yet, however, been fully eliminated, and moreover, the new force was under the disadvantage of adapting itself temporarily to the old Border Police posts, which in many cases were unsuitably located. The question of determining the most advantageous positions in which to place them was at the end of the year under consideration.

Kashmir.—Both receipts and expenditure showed an increase as compared with the previous year; the former rising from £887,000 to £910,000, and the latter from £782,000 to £849,000. The actual surplus of £61,000 was chiefly due to increased receipts from Customs, Sericulture, Public Works and Forests, and to diminished expenditure generally. Investments held at the close of the year rose by £20,000 to £354,000.

The Imperial Service Troops of all ranks numbered 3,589, while the Regular Troops numbered 2,949. Nine cadets were sent for instruction to British Indian Regiments. A partial reorganisation in Army Headquarters was effected.

The total value of Central Asian trade was approximately £253,000 as against £217,000*l.* in 1912. The new trade route from Leh to the Karakoram Pass was completed and opened to traffic in the spring of 1914.

The prospects of sericulture for the next year were seriously prejudiced by a destructive fire at the Srinagar silk factory which involved loss amounting to £100,000, of which £80,000 were covered by insurance.

The Forest Regulation was revised, and six new forest ranges were formed. The area of demarcated forests increased considerably, and the financial results of the year's working were satisfactory.

There was steady progress in education. Both the teaching and inspecting staffs of the colleges and schools were strengthened, and the building of the Raja Amar Singh Technical Institute (since opened) approached completion. The total cost of education rose from £32,000 to £40,000.

Increased medical and surgical relief was afforded during the year, and three new dispensaries were opened. A mild form of plague prevailed in Jammu, resulting in 309 seizures and 157 deaths. Mortality from small-pox fortunately declined, the deaths being 832, as against 1,338 in 1912.

The Telegraph Department was partially reorganised on the lines of the Imperial Telegraph Department.

In municipal administration an interesting experiment was made in the reconstruction of the municipalities at Jammu and Srinagar on a partially elective basis.

Dredging operations on the Jhelum river were continued. Owing, however, to a flood in March, many reclaimed areas became inundated in consequence of uncompleted bunds.

In the Ilaqua of Poonch malaria in epidemic form was severe from August to the middle of October. As a preventive measure, cultivation of maize and rice was stopped in the vicinity of Poonch.

Sikkim.—The Maharaja of Sikkim, His Highness Sir Thotub Namgyal, K.C.I.E., died on the 11th February 1914, and was succeeded by the Maharaj-Kumar Sidkeong Tulku.*

In order to prevent land from passing into the hands of the Marwaris, the professional money-lenders in Sikkim, the unwritten law, that Marwaris and other Indians are not permitted to possess land in Sikkim, or to have any control over such land, was placed on record.

Successful measures were taken by the State Forest Department to protect the soil against damage by landslips. No fresh landslips occurred, and in those already existing there was no further erosion of the soil.

The total export and import trade with India rose from £191,000 to £318,000. Various concessions in connection with the development of the resources of the State were in the year under review given to Messrs. Burn and Co., and when work is commenced on these concessions there should be a further strong impetus to trade. The Darjeeling-Himalayan Railway extension to the Teesta Bridge, which will probably be completed in 1915, should also have a marked effect in the same direction.

A co-operative credit society was started under the control of His Highness with a capital of £7,000.

Assam Border Tribes.—The survey parties in the Mishmi and Abor countries completed their work without friction. The Lohit valley road was carried to Theronliang, and communication with the hill tribes was kept up. The relations with the various tribes were generally good, and with a few exceptions the usual posas (allowances) were distributed to Bhutias, Akas and Daflas. The number of disturbances during the year was small. A raid by some Tagin Abors on a Dafla village resulted in reprisals, the matter being dealt with in due course by the political officer. In a quarrel between Barduaria and Barmithunia Nagas three of the former were killed. Two Naga headmen of the unadministered tract who were responsible for an attack by the men of Anangba on the village of Kumishe, in which a British subject was killed, were imprisoned. From the trans-frontier villages 16 other head-hunting raids were reported.

Burma: Kachin Hills and North-Eastern Frontier.—The outstanding feature of the year on the north-eastern frontier was the taking under administration of a new area north of Myitkyina, which has, since the close of the year, been formed into the new district of Putao. The civil officers everywhere met with a friendly reception. Relations with the Chinese continued friendly, and the ordinary frontier meetings were resumed. The amount of violent crime in the north-east frontier districts was about normal. Considerable seizures of opium were made during the year. Progress was made in the construction of new roads.

The Chin Hills.—The year was again uneventful. With a few minor exceptions, relations with tribes in unadministered territory continued to be friendly. The regular crops were poor in the northern hills, but good elsewhere, and the cultivation of wheat was resumed by the Chins. The civil hospitals became more popular, and vaccination made great progress.

Shan States.—In the Southern Shan States the year was peaceful and on the whole prosperous. There was a considerable decrease in violent crime. The rainfall was abundant, and crops generally were good, but there was a severe outbreak of rinderpest amongst the cattle. Trade with Burma prospered and expenditure on public works increased. The financial position of the States generally showed substantial improvement. Twenty-three miles of the Thazi-Yawnghwe railway had been completed by the end of 1913.

In the Northern Shan States the frontier, for the most part, remained quiet during the year. The first frontier meeting between British and Chinese officials since the inauguration of the Chinese Republic, was held in January, and relations were most

* The new Maharaja died on the 5th December 1914, and has been succeeded by his half brother, Trashi Wangyal.

(Frontier States.)

cordial. There was no marked increase in the number of serious criminal offences. The rains were badly distributed, and the crops somewhat below the normal. Cattle disease caused serious losses in the different States. Good progress was made in road-making and bridging. The financial position of the States was generally sound. In the State of Möng Mit and in the Shan States of Thaungthut and Kanti, in the Upper Chindwin district, the people again enjoyed a prosperous year.

Karenni.—In Karenni the year was uneventful and prosperous, and the administration of the States was satisfactory. The rice crop was below normal, but other crops were good. The timber trade was good and other trade improved. The expenditure on public works was satisfactory, and the financial position of the States was sound.

Native States.

Hyderabad.—The following information is for the calendar year 1913:—

The rainfall in the State was, on the whole, fair, and averaged 25·71 inches, or 1·64 inches more than in the preceding year. The rainfall in parts of Raichur, Gulbarga and Usmanabad districts was so small as to give rise to fodder and water scarcity. The general crop prospects were fair at the close of the year.

Gold to the value of £77,227 was won by the Hutti (Nizam's) Gold Mining Company during the year. The output of coal at the Singareni Collieries was 552,132 tons, an increase of 70,480 tons compared with that of 1912.

Plague did not reappear in the Hyderabad City or the Residency Bazars or Secunderabad Cantonment during the year. The plague returns for the State generally were normal, with the exception of Raichur where the number of deaths increased from 12 in June to 1,272 in November.

The question regarding the division of the waters of the Tungabhadra river was still undecided at the close of the year. The Nizam's Government had agreed to the proposal that the matter should be referred for arbitration to a Court to be presided over by Sir Henry Griffin, a Judge of the Allahabad High Court, but had suggested that the same authority should also arbitrate with regard to the allocation of the waters of the Kistna river and its affluents. The Madras Government, however, objected to the latter suggestion, and the discussion was not concluded.

The boundary between Gudimetla in the Madras Presidency, and Ushtepalli in the Hyderabad State, as fixed by the Court of Arbitration (referred to in last year's report), was demarcated by officers deputed by the Madras Government and the Hyderabad State.

Mysore.—The rainfall was scanty and ill-distributed, with the result that there was a shrinkage in the acreage and the outturn of the ragi crop, but the rice crop was fairly satisfactory. The prices of food-grains, other than rice, showed a slight increase.

The birth-rate was 18·94 per mille of population against 19·11 in the previous year, while the death-rate was 18·07 against 18·02. There was a noticeable increase in mortality from small-pox, and a slight increase from cholera. The total number of persons vaccinated was 108,632, or 18,514 more than in the preceding year. The question of improving the sanitary and economic condition of the malnad (hilly) portions of the State received attention, and a village improvement scheme was prepared.

The Agricultural Department was reorganised and strengthened. Cattle shows were held at 22 places, and, as usual, lectures were delivered on agriculture, sanitation, cattle-breeding, &c. by the officers of the departments concerned.

Re-survey operations were completed in 227 villages covering an area of 440 square miles.

The co-operative movement again made considerable progress, the number of societies rising from 343 to 530. A provincial co-operative conference was held for the third year running at Mysore. Two of the agricultural banks were closed, leaving only two open at the end of the year. Eleven new joint stock companies were registered and one was wound up, the total number working at the close of the year being 63.

The total value of the gold produced ~~in the mines~~ was £2,~~1~~52,000, and the royalty realised by the State amounted to £126,000, the figures for the previous year being

practically the same. Manganese mining showed little activity, but some interest was displayed in chrome and iron mining.

The total expenditure on public works from all sources, including local funds, was about £395,000 against £340,000 for the year 1912–13. Nearly equal amounts were spent on irrigation works on the one hand, and on civil works and military buildings on the other. The matters at issue between the Government of Madras and the Mysore Durbar in connection with the storage of the waters of the River Cauvery within Mysore territory were inquired into by an Arbitration Committee, whose decision had still to be confirmed by the Government of India. The Bowringpet-Kolar Light Railway was completed, and construction work was in progress on the Mysore-Arsikere Railway, the Bangalore-Chikballapur Light Railway, and the Tarikere-Yedahalli tramway.

The sanctioned strength of the permanent police force was 863 officers and 5,163 men, against 840 officers and 5,115 men in 1912–13. The cost of police administration was £71,000, approximately.

The work of the Economic Conference showed marked development during the year. The energies of the Education Department were chiefly devoted to the development of elementary education. A scheme of compulsory education was sanctioned for introduction in 15 selected centres. Effect was given to the arrangements for providing technical and commercial education referred to in last year's report. Female education continued to advance. A school was opened at Bangalore for giving practical education in agriculture. Sericulture received considerable attention. The question of starting various industries was considered by the newly-treated Department of Industries.

The Legislative Council met four times and considered 15 bills, including nine which were pending from the previous year. Of these 12 were passed and 10 received the assent of H.H. the Maharaja. In the year under report the Legislative Council was enlarged, and was granted the privilege of discussing the budget and of making interpellations.

An important event was the substitution of a Treaty for the Instrument of Transfer of 1881. The Treaty was signed on 26th November 1913.

H.E. the Viceroy visited the State in November 1913.

The actual receipts during the year under service heads were £2,009,000 against £1,730,000 in 1913, and the expenditure £1,746,000 against £1,500,000.

Baroda.—The following information is for the year ending 31st July 1913 :—

The total revenue of the State amounted to £1,474,000 as against £960,000 in the previous year, the large increase being almost entirely due to the improved receipts from land and opium. Good rainfall and agricultural prosperity accounted for the increased land revenue, while the better receipts under the head of opium are explained by the number of chests sold at high prices. As a set-off, however, against the latter increase there was a largely enhanced expenditure, owing to higher opium duty and export charges on a large number of chests sent to Bombay, and the net profit to the State amounted to barely £30,000. The total expenditure during the year was £1,200,000 against £1,160,000 in 1911–12. After opium, already referred to, the chief increase in expenditure was £7,800 under the head of education, due to an increase in the number of schools, promotions, and purchase of apparatus.

The Department of Agriculture did good work during the year by means of honorary correspondents, demonstrations at the model farms, by its publications and instruction in its boarding school.

Two joint-stock companies were registered, and one Mangalore tile and two ginning factories were started during the year. A Chamber of Commerce was established at Baroda City and at Naosari. The number of co-operative credit societies rose from 124 to 189, and this movement has had a marked effect in reducing the interest charged by moneylenders, and in other ways improving the condition of its members.

The public health was fairly good. There were 283 cases of plague as against 1,272 in 1911–12. There were 59 medical institutions, and the number of cases treated during the year was 395,082; of these, 391,057 were out-door and 4,025 indoor patients. During the year 18,049 surgical operations were performed.

The Public Works expenditure amounted to £188,000 as against £293,000 in 1911–12. Sixteen miles of railway were opened for traffic, and 153 were under construction. The expenditure on railways was £99,000.

(Native States.)

The total number of educational institutions rose from 2,961 to 3,045, and the number of scholars from 188,373 to 207,913. There were 9,468 students learning English as against 8,641 in 1911–12. The compulsory standard for both boys and girls was raised to the fifth vernacular standard, and the school age was raised from 11 to 12 for girls and from 12 to 14 for boys. The number of town and village libraries in the State was 344, and of reading rooms 79 at the end of the year.

The police investigated 5,180 cases. The percentage of cases in which property was recovered was 43·21. Of 4,137 persons arrested, 294 were released before trial, 4 died, 9 escaped, 1,894 were convicted, and 1,517 acquitted or discharged.

The year was marked by the passing of the Arms, Ammunition and Explosives Amendment Act, restricting the possession and sale of breech-loading arms of precision and ammunition used in these weapons. A set of rules was framed relating to the selection of Mahants of religious institutions and prescribing the duties of these priests. A Bill was also published inviting suggestions for the improvement of Hindu Purohits by a qualifying examination for the order with the object of providing learned and competent priests. The number of elected members of the Legislative Council was raised from 6 to 10.

Acting on medical advice H.H. the Maharaja proceeded to Europe at the beginning of May 1913.

Central India.—The principal feature of the year was the failure of the rains in the Bundelkhand and Baghelkhand Agencies and in the northern portion of Gwalior. The result was a severe shortage of the kharif and rabi crops, the defect being greatest in Bundelkhand and least in Gwalior. Owing, however, to the considerable surplus stocks of food grains from previous harvests in the hands of the cultivators, and to the timely measures taken by the authorities, it was found possible to avert actual famine. The loss of plough cattle was small, and among human beings there were no deaths from starvation. In the rest of Central India there was an average harvest, although in Malwa a certain amount of damage was done owing to the untimely character of the rainfall.

Central India was practically free from plague during the year, there being 173 deaths, as compared with 5,282 in 1912–13. Cholera was also less prevalent, the mortality from this disease falling from 9,080, the figure for the previous year, to 2,823. Small-pox, however, was again epidemic, although vaccination slightly improved. The number of patients treated in hospital under all heads increased by 67,324 to 1,789,517.

Crime was normal, but with an appreciable decrease in dacoity cases from 74 in 1912 to 47. The settlement of the criminal tribes continued to progress.

The Malwa Bhil Corps, whose efficiency was favourably reported on, were transferred in the course of the year to their new lines.

The total outlay on Imperial public works amounted to £44,000 approximately. The principal works undertaken during the year were police lines at Sehore and Nowgong, and a new press building for the Central India Agency Press. The Department maintained the same length of roads as last year, viz., 755¼ miles.

Owing to the exclusion of opium from China the only opium which left Malwa for the latter country during 1913–14 consisted of 2,645 chests out of the 2,760 chests, the right of export of which was sold by auction in November and December 1912. On these 2,645 chests Government realised £2,092,000 for the right of export, in addition to the pass duty of £80 per chest; and of this sum the share assigned to the States of Central India amounted to £1,560,000. It had, however, originally been intended to allow as many as 13,820 chests to be exported from Malwa, and, to compensate the local opium traders for their disappointment, Government decided to purchase 11,253 chests themselves. The stock of opium in Malwa on the 31st March 1913 was estimated in the report for 1912 at between 38,100 and 43,100 chests. Taking into account the outturn of the 1912–13 crop and the depletion due both to local consumption and to the export trade as represented mainly by the above transactions, the net stock in hand on the 31st March 1914 should have been between 25,200 and 30,200, giving for the following year, if the outturn of the 1913–14 crop is taken at 1,063 chests, a total of between 26,300 and 31,300 chests. It would appear, however, from local inquiries that the real figure is more nearly 39,000. During the year there was a satisfactory diminution of the area under poppy in Central India from 22,016 acres in 1912–13 to 2,288 acres in 1913–14.

In the course of the year the Madras system of excise was adopted in practically the whole of the Gwalior State, and of the Bundelkhand and Baghelkhand Agencies, as also in the Kurwai, Pathari, Muhammadgarh and Basoda States in the Bhopal Agency, and in nearly all those parts of the Indore State where it was not previously in force. In the Administered Areas under British jurisdiction, development followed the same lines as in the surrounding States.

The scheme for the improvement of education in the Administered Areas in Central India was still under the consideration of the Government of India at the close of the year.

Rajputana.—The information available is partly for 1912–13 and partly for 1913–14, and the States have been grouped accordingly.

1912–13 (General).—The rainfall for 1912, although unevenly distributed in some States, was generally satisfactory. The harvests were on the whole good, and the prices of grains easier than in the previous year.

Plague was prevalent in the Jaipur State for the greater part of the year, the total number of attacks being 1,533 and deaths 1,469, as against 4,114 attacks and 3,999 deaths in the preceding year. There were also some cases of cholera in the Jaipur State and the city of Tonk. For the rest, the health and condition of the people were generally satisfactory. No cattle disease was reported during the year. Education continued to progress. The number of schools in Jaipur rose from 1,215 to 1,225, and the expenditure from £11,000 to £12,700.

In Sirohi the work of the land settlement made good progress; the operations, however, were unpopular with the Jagirdars, and the attestation of the record of rights was in consequence attended with some difficulty. Satisfactory progress was made towards the liquidation of State debts.

Jaisalmer.—The proposal to connect Delhi and Sind by a railway running through the territory of the State excited great interest, as such a railway would be of immense benefit to the people.

Jaipur.—Work in connection with the Jaipur-Shekhawati railway was in progress during the year. The Durbar proposed to allot £100,000 per annum towards completing and extending their railway system through the northern portion of the State. The railway will, when completed, be invaluable in recovering and centring in the capital much of the trade which has been temporarily diverted from it by the construction of the Rewari-Phulera and Degana-Hissar railways. New irrigation works were in progress during the year, the principal being the Dhil Nadi Bund, the new tanks at Rajoli and Bahawalpur, and the masonry weir on the River Mashi below Narera.

Tonk.—The private mills and factories opened during the past years continued to work satisfactorily. Another cotton-ginning factory was added during the year under review.

The following information about Bikaner relates to the year 1911–12:—

Bikaner.—His Highness the Maharaja celebrated at Bikaner the 25th anniversary of his accession to the "Gadi." On the latter occasion His Highness publicly recognised the political rights of his people by the institution of a "Representative Assembly," consisting partly of nominated and partly of elected members. Among other boons announced by His Highness were the abolition of import, export, and transit duties on grain, and the establishment of Punchayat courts in selected villages to arbitrate in petty civil cases.

1913–14 (General).—Owing to the deficiency of the monsoon rainfall in 1913 there was a shrinkage in the cultivated area, and scarcity of water and fodder prevailed in many places. Prices ruled high in Mewar. Relief measures, such as the grant of agricultural loans and the suspension of revenue, &c., were adopted in Kotah, Bharatpur, Dholpur, Karauli and Alwar, while in Bharatpur irrigation and other suitable works were also opened to provide employment for the people. The monsoon of 1914 was on the whole timely and well distributed, and the prospects of the crop were good.

Save for a severe outbreak of cholera in the Kotah State which lasted two months and in the city of Jhalawar during the rainy season, the public health was satisfactory. In educational matters progress continued to be slow, but three primary schools and a school for girls were opened in Bharatpur and a new primary school in Karauli, while the girls' school at the capital in Jhalawar made remarkable progress.

(Native States.)

Since the close of the year, the war in Europe has demonstrated in a striking manner the loyalty of all the States in Rajputana. Most of the chiefs offered their personal services and the entire resources of their States. Their Highnesses the Maharajas of Jodhpur, Bikaner, and Kishangarh, and the Maharaja Regent of Jodhpur have proceeded on active service, and the following Imperial Service troops are in the field :—Jodhpur Lancers, Bikaner Camel Corps, four companies of the Bharatpur Infantry and the Transport Corps, quarter part of the Jaipur Transport Corps, the Alwar Infantry, and one squadron of the Alwar Lancers.

Kotah.—His Highness the Maharao contributed one lakh of rupees to the Women's Medical College and Hospital at Delhi. A scheme for the supply of pure drinking water to the Kotah city was in course of preparation.

Jhalawar.—The Chief spent a portion of the hot weather in Kashmir. The revised land settlement worked well and gave satisfaction to the people. On the death, in June 1914, of the late Dewan Bahadur P. Permanand, who had been Dewan for 20 years, a State Council was appointed to carry on the administration under the presidency of His Highness.

Bharatpur.—In March 1914, His Highness the Maharaja went to England to be educated and was entered at Wellington College. One new dispensary was opened in the State. The sanitary reforms introduced in the State gave satisfaction.

Dholpur.—On the 9th October 1913, His Highness the Maharaj Rana was invested with full ruling powers. A new female dispensary was constructed in Dholpur, and the extension of the Dholpur Light Railway to Tantpur was completed.

Alwar.—In April 1914, His Highness the Maharaja of Alwar contracted a second marriage with the daughter of the Thakur of Khirasra in Kathiawar.

Mewar.—In Mewar the construction of the lines of the Imperial Service Cavalry and of a cotton-ginning factory was completed. The services of three officials of the limited Province Government were obtained by the Mewar Durbar for employment in the State.

In the Shahpura Chiefship a small new charitable dispensary was opened.

Bengal.—The condition of the people in Cooch Behar during the year under review was, on the whole, fair. The principal crops suffered from the unevenness of the monsoon rainfall, but the high price of jute, rice, &c. provided a partial compensation. The progress of education, which had been fairly rapid in the previous years, was slightly affected by the unsatisfactory character of the season, and it was difficult to maintain the standard of the old schools or to start new schools. The Legislative Council met twice during the course of the year to consider and pass the Cooch Behar Survey Bill.

The late Maharaja, who died in England on the 1st September 1913, was succeeded by his eldest surviving brother, His Highness Maharaja Jitendra Narayan Bhup Bahadur.

In Hill Tippera, owing to the unseasonable climatic conditions and the consequent failure of the Joom crops there was considerable distress and poverty among the people, and the hillmen had to be relieved by gratuitous help and advances. The revenues of the State were also naturally affected, especially by the failure of the cotton crop. Education showed some slight progress, there being an increase in the number of children attending school.

Bihar and Orissa.—For the Tributary and Feudatory States of Orissa the record of the year is good. In the matter of the collection of land revenue 21 States out of 24 showed an advance on last year's figures. There was a steady improvement throughout in the administration of police and the reporting of crime. The income from forests showed a continued increase. The expenditure both on public works and education was larger than in the preceding year. The outturn of winter rice and of the rabi crop was on the whole good, and the year generally was a fairly prosperous one. Public health was satisfactory, and both vaccination and re-vaccination showed steady progress. There were altogether 11 States under the management of Government. The State of Hindol was released from Government administration at the close of the year and the chief was installed on the "gadi" on the 20th October 1913.

Assam.—*Manipur.*—The main feature of the year was the abolition of the pothang, or system of personal service by raiyats in the upkeep of roads and schools and in the

conveyance of baggage of touring State officials. To cover the additional expense incurred by the State extra taxes were imposed. The agitation against the old system was transferred to the new taxes, with the result that the collection of the revenue was seriously delayed. Eventually the chief agitators were arrested and imprisoned. The rainfall was normal, but as it was deficient at the time of transplanting, the new crop suffered. The plague of rats, however, ceased, and good crops were realised in the winter. The silk venture, which was taken over by the Durbar in the previous year, was for various reasons again unfortunate.

The conduct of the hill tribes and of the tribes in the unadministered tract was satisfactory.

United Provinces of Agra and Oudh.—In the Benares State, notwithstanding the capricious nature of the rainfall, conditions for the year 1913–14 were normal. Irrigation works in Chakia district were pushed on to a very considerable extent, and owing to the water thus made available the "Kharif" crop in that area, which would otherwise have suffered severely, was almost entirely saved. Earthwork on the Moghal Sarai-Chakia road was completed, and the metalling of the road was to be taken in hand in the succeeding year. In the year under review elementary education was made free in the State. New primary schools were opened, and the number of scholars continued to rise. Co-operative banks multiplied at a very rapid rate, and without exception showed signs of prosperity and expansion. The far-reaching effects of the present European war received an illustration in the severe check which later in the year 1914 was experienced by the flourishing carpet industry of the district of Bhadohi. Prompt measures for tiding over the present difficulty were taken by the State.

The Tehri State suffered a serious loss through the death, on April 23rd, 1913, of the reigning Raja at the early age of 39.

Owing to the insufficiency and untimeliness of the rainfall the Rabi and Kharif crops suffered to a certain extent, but no appreciable distress was caused and no takavi advances had to be made except in the case of a few villages in the upper part of the State. The forest revenue, which forms the chief income of the Tehri State, again increased. Notwithstanding slight epidemics of small-pox and cholera the health of the people was generally good. Education is backward but continued to make slow progress.

Punjab Native States.—Owing to a failure of the rains in August and September crops were generally poor. Public health was on the whole good, and the revenue returns were satisfactory. Education continued to make progress in the more important States. In Jind six new primary schools were opened during the year, bringing the total number in the State up to 39. The average school attendance was 2,300. In Patiala, where the number of schools is 262 and the attendance 14,586, it was noticed that an increased attendance at primary schools was accompanied by a falling off of high schools. With perhaps one exception the Imperial Service Corps in the various States maintained a high level of efficiency. The most important facts in the political administration of the year were (1) the breaking up of the Agency of Phulkian States and Bahawalpur, (2) the constitution of the Phulkian States into a separate Agency, (3) the formation of a new Political Agency from Bahawalpur, Faridkot and Maler Kotla.

Central Provinces.—Owing to the abrupt cessation of the rains at the end of August the outturn of the crops was below the normal, but although there was a general rise in the price of food-grains the condition of the people remained good. The land revenue was easily recovered in full in most of the States; only in Kawardha State did the crop failure necessitate suspensions and remissions on a small scale. Trade was normal, employment was ample, wages remained almost stationary, and there was no heavy mortality from epidemic disease except in Kawardha, where an outbreak of cholera claimed 500 victims. In most of the States there was an increase in the number of criminal offences reported, but they were almost all of a petty nature. Education showed some slight progress on the whole. The financial condition of all the States was satisfactory. There were no changes in the Administration during the year, but the succession of Mahant Lal Sarveshwar Das to the "gadi" of the Nandgaon State was recognised by the Government of India and announced by the Chief Commissioner.

(Native States.)

Bombay.—The season was generally good and prosperous, but there were some exceptions. The harvest was only fair in the Southern Maratha Country States, and was very poor in parts of them. The Satara Jaghirs for the second year in succession suffered from scanty and untimely rainfall, with the result that the crops were moderate in Aundh, poor to moderate in Akalkot and Daphlapur, and bad in Phaltan and Jath. Yet it is satisfactory to find that there was no need to open relief works, and that the rayats, like their brethren in British districts, have learnt to fend for themselves. Public health, which had been very poor in the previous year, experienced a welcome recovery. There was little epidemic disease, and in practically every State the birth-rate advanced, and death rate showed a marked decline. Trade and industry flourished, and crime showed some tendency to fall. Education progressed but slowly, though most States could show a rise in the number of pupils under instruction.

During the year the Sar Desai of Savantvadi died, and was succeeded by his son, who is being educated in England. The deaths also occurred of H.H. the Maharani of Cutch and the Begam Saheba of Sachin. A son and heir was born to H.H. the Nawab of Janjira. A somewhat serious Bhil rising on the Sunth—Banswara border was speedily put down, and the ringleaders were tried and convicted by a special commission.

Madras.—In Travancore the season on the whole was favourable to agriculture, but prices of food-grains rose slightly, as did also the wages of labour. Exports and imports increased by £33,000 and £253,000 respectively. Public works expenditure exceeded that of the previous year by £53,000, and good progress was made with the Kodayar irrigation works.

The revenues of the State continued to expand, the total receipts being £987,000, while the expenditure amounted to £973,000. Expenditure on education rose by £21,000 to £85,000, and the proportion of children of school-going age who were under instruction increased from 35 to 39·8 per cent. The legislative council was expanded during the year, the number of members being raised from 10 to 15.

In the Cochin State the revenues again exceeded the expenditure, the surplus amounting to £60,000. Agriculture in general was in a flourishing condition, but the coffee crop was not quite so good as usual. There was an increase in the number of schools of all classes, and the proportion of boys and girls under instruction to the male and female population of school-going age rose from 53·6 and 24 to 69 and 29 per cent. respectively. In commemoration of his sixtieth birthday the Raja announced several "boons," among them being the proposed formation of an advisory council. At the same time he declared his intention of retiring into private life, but his abdication did not actually take place till December 1914.

The revenues of the Pudukkottai State continued to exceed the expenditure. The season was favourable and the condition of the agricultural classes good. The expenditure in the Public Works Department showed some improvement, but the progress made with the repair of irrigation sources was very unsatisfactory. There was again a slight increase in civil litigation. Crime on the other hand decreased, but the work of the police was poor. Public health was good on the whole, and the administration of the municipal council in Pudukkottai town and of five unions in outside villages was satisfactory. Although the State expenditure on education was much increased, there was a disappointing falling off in the number of pupils under instruction.

The total revenues of the Banganapalle State were much the same as in the previous year and showed a surplus over expenditure. The rainfall in August and October was deficient and agriculture suffered accordingly; the cotton harvest was good, but prices were poor. Education showed signs of improvement.

The finances of the Sandur State were on the whole satisfactory, both revenue and expenditure showing a considerable increase. The public health was satisfactory, the birth-rate being higher and the death-rate lower than in the previous year. The rainfall was insufficient from July to September, and the crop outturn was poor. Education continued to be backward although attendance increased. The installation of the Raja took place in July 1913.

APPENDIX.

LIST OF INDIAN OFFICIAL REPORTS, &c.

(MOSTLY ANNUAL.)

General.

Statistical Abstract relating to British India (Parliamentary Paper).
Statistics of British India:—
- Part I.—Industrial (Factories, Mills, Mines, &c.).
- Part II.—Commercial (Foreign Trade and Shipping, &c.).
- Part III.—Commercial Services (Post Office, Railways, Telegraphs, &c.).
- Part IV.(*a*)—Finance and Revenue (Paper Currency, Coinage, Public Debt, &c.).
- Part IV.(*b*)—Finance and Revenue (Principal Heads of Revenue, Salt, Opium, &c.).
- Part V.—Area, Population, and Public Health (Area, Population, Emigration, Births and Deaths, Vaccination, &c.).
- Part VI.—Administrative and Judicial (Administrative Divisions, Civil and Criminal Justice, Registration, Police, Jails, &c.).
- Part VII.—Educational (Education, Printing Presses, and Publications).
- Part VIII.—Local Funds (Municipalities, Local Boards, and Port Trusts).

Census Reports (Decennial), India and Provincial.
Administration Reports: Madras, Bombay, Coorg, United Provinces, Punjab, Bengal, Central Provinces and Berar, Burma, Bihar and Orissa, Assam, Andaman and Nicobar Islands, Civil and Military Station of Bangalore, Ajmer-Merwara, Baluchistan, North-West Frontier Province, Delhi.

Justice and Police.

Report on the Administration of Civil Justice for each Province.
Report on the Administration of Criminal Justice for each Province.
Report on Jails for each Province.
Reports on Police for each Province, and for Bombay Town and Island, Calcutta, and Rangoon.

Finance.

Finance and Revenue Accounts of the Government of India.
East India Financial Statement (Parliamentary Paper).
Return of Net Income and Expenditure for eleven years (Parliamentary Paper).
Accounts and Estimates: Explanatory Memorandum (Parliamentary Paper).
Home Accounts (Parliamentary Paper).
Estimate of Revenue and Expenditure (Parliamentary Paper).
Loans raised in England (Half-yearly Parliamentary Paper).
Loans raised in India (Half-yearly Parliamentary Paper).
Mint Reports for Calcutta and Bombay.
Paper Currency Department Report.
Statistics compiled from the Finance and Revenue Accounts.

Land Revenue, &c.

Land Revenue Administration Provincial Reports for Lower Provinces (Bengal), Bihar and Orissa, Assam, United Provinces, Bombay Presidency (including Sind), Punjab, Central Provinces and Berar, Burma, and Madras.
Report on Land Revenue Administration, Land Records, Settlement Operations, Alienation of Land Act, &c. for North-West Frontier Province.
Madras Survey, Settlement and Land Records Department Report.
Reports of Land Records Departments for Bombay, Burma, Bengal, United Provinces, and Punjab.
Report on Settlement Operations, Punjab.
Reports on Survey and Settlement Operations, Bengal and Assam.
Reports on Operations of the Land Records and Settlement Departments, Central Provinces and Berar.
Report of the Talukdari Settlement Officer, Bombay.
Provincial Reports on the Administration of Estates under the Court of Wards.
Report on the Punjab Canal Colonies.

Separate Revenue (Salt, Excise, &c.).

Salt Department Reports: Northern India, Madras, Bombay, Sind, Bengal, Burma, Bihar and Orissa.
Excise Report for each Province.
Opium Department Reports: United Provinces and Bombay.
Stamp Department Report for each Province.
Registration Department Report for each Province.
Income Tax Report for each Province.

Agriculture and Veterinary.

Report on the Progress of Agriculture in India.
Report of the Agricultural Research Institute and College, Pusa.
Bulletins of the Agricultural Research Institute, Pusa, and of the Provincial Departments of Agriculture.
Memoirs of the Department of Agriculture.
Proceedings of the Board of Agriculture.
Agricultural Journal of India (quarterly).
Report of the Department of Agriculture in each Province.
Reports on various Agricultural Stations, Experimental Farms, and Botanic Gardens.
Season and Crop Report for each Province.
Agricultural Statistics of India.
Area and Yield of certain Principal Crops.
Report on Production of Tea in India.
Report on Tea Culture in Assam.
Statistics compiled from the Reports of the Provincial Civil Veterinary Departments.
Report of the Camel Specialist.
Report of the Imperial Bacteriologist (Veterinary).
Reports of the Civil Veterinary Departments for Madras, Bombay, United Provinces, Punjab, Bengal, Burma, Assam, North-West Frontier Province, and Bihar and Orissa.

Co-operative Societies.

Statements showing Progress of the Co-operative Movement in India.
Report on Co-operative Credit Societies for each Province.
Reports of Conferences of Registrars of Co-operative Credit Societies, India and Provincial.

Forests.

Review of Forest Administration in British India.
Report on Forest Administration for each Province.
Reports of the Forest Research Institute and the Imperial Forest College, Dehra Dun.
Indian Forest Memoirs.
Indian Forest Records.
Forest Bulletins.

Mineral Production and Mines.

Review of Mineral Production (in Records of Geological Survey).
Report on Production of Coal in India.
Report of the Chief Inspector of Mines.

Trade and Manufactures.

Annual Statements of Sea-borne Trade and Navigation, India and Provincial (Madras, Bombay, Sind, Bengal, Burma).
Review of the Trade of India (Parliamentary Paper).
Tables of the Trade of India (Parliamentary Paper).
Provincial Reports on Maritime Trade and Customs (including working of Merchandise Marks Act) for Bengal, Bihar and Orissa, Bombay, Sind, Madras, and Burma.
Accounts of Sea-borne Trade (monthly and for Calendar Year).
Accounts of Land Trade (monthly).
Annual Statement of Coasting Trade of British India.
Report on the Trade and Navigation of Aden.
Accounts of Trade carried by Rail and River in India.
Report on Inland, Rail-borne, or Rail-and-River-borne Trade for each Province.
External Land Trade Reports for Bengal, Bihar and Orissa, Assam, Burma, United Provinces, Punjab, North-West Frontier Province, Sind, and British Baluchistan.
Indian Trade Journal (weekly).
List of Joint-Stock Companies in British India and Mysore.
Reports on the working of the Indian Companies Act (Provincial).
Report on the working of the Indian Factories Act for each Province.
Report of the Chief Inspector of Explosives.

Public Works.

Administration Report on Railways (Parliamentary Paper).
Railways and Irrigation Works. Return of Capital Expenditure, &c. (Parliamentary Paper).
Provincial Reports on Public Works (Buildings and Roads).
Report on Financial Results of Irrigation Operations.
Report on Irrigation Revenue for each Province.
Reports of Madras and Bombay Irrigation Departments.
Annual Report on Architectural Work.

Post Office and Telegraphs.

Post Office Report.
Report of Indian Telegraph Department.
Report of Indo-European Telegraph Department.

Scientific Departments.
Report of the Operations of the Survey of India.
Records of the Survey of India.
Records and Memoirs of the Geological Survey of India.
Report of the Indian Meteorological Department.
Indian Weather Review, Annual Summary.
Rainfall of India.
Memoirs of the Indian Meteorological Department.
Report of the Meteorologist, Calcutta.
Report of the Director-General of Observatories.
Memoirs and Bulletins of the Kodaikanal Observatory.
Report of the Board of Scientific Advice.
Report of the Archæological Survey of India, and Provincial Reports.
Report and Records of the Botanical Survey.

Education, Literature, and the Press.
Education Report for each Province.
Quinquennial Review of Education (Parliamentary Paper).

Local Self-Government.
Reports on Municipalities for each Province and for Calcutta, Bombay City, Madras City, and Rangoon.
Report on District and Local Boards or Local Funds for each Province.
Reports of Port Trusts of Calcutta, Bombay, Madras, Rangoon, Karachi, and Aden.

Medical, Sanitary, and Vital Statistics.
Report of the Sanitary Commissioner with the Government of India.
Report on Sanitary Measures in India (Parliamentary Paper).
Report of the Sanitary Commissioner for each Province.
Vaccination Report for each Province.
Report on Civil Hospitals and Dispensaries for each Province.
Report on Lunatic Asylums for each Province.
Report of the Chemical Examiner and Bacteriologist for each Province.
Scientific Memoirs by Officers of the Medical and Sanitary Departments.
Reports of the All-India Sanitary Conferences.
Reports of the Imperial Malaria Conferences.
Indian Journal of Medical Research (Quarterly).

Emigration and Immigration.
Calcutta Port Emigration Report.
Bengal Inland Emigration Report.
Assam Immigration Report.

Prices and Wages.
Prices and Wages in India.
Variations in Indian Price Levels.
Reports of Provincial Wage Censuses.

EAST INDIA (PROGRESS AND CONDITION).

STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION

OF

INDIA

DURING THE YEAR 1914-15.

FIFTY-FIRST NUMBER.

(Presented pursuant to Act 5 & 6 Geo. V. c. 61, s. 26.)

India Office,
3 July 1916.

T. W. HOLDERNESS,
Under Secretary of State for India.

Ordered, by The House of Commons, *to be Printed,*
5 July 1916.

LONDON:
PRINTED UNDER THE AUTHORITY OF HIS MAJESTY'S STATIONERY OFFICE
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PREFACE.

THE Statement exhibiting the Moral and Material Progress and Condition of India is presented to Parliament in accordance with the requirements of the 26th section of the Government of India Act (5 and 6 Geo. V., cap. 61), which provides as follows:—"The Secretary of State in Council shall, within the first fourteen days during which Parliament is sitting next after the first day of May in every year, lay before both Houses of Parliament an account for the financial year preceding that last completed of the annual produce of the revenues of India . . . The account shall be accompanied by a statement, prepared from detailed reports from each Province, in such form as best exhibits the moral and material progress and condition of India."

The Statement is prepared in the India Office from a large number of annual reports received from India. Many of these reports are compiled from information furnished by District and Political Officers, and are submitted to the Governments of the respective Provinces and to the Government of India for consideration and review before transmission to England; and some of them are not received at the India Office till about a year after the close of the period to which they refer. It is, therefore, seldom possible to present the Statement to Parliament earlier than the date mentioned in the statute, *i.e.*, about thirteen and a half months after the close of the official year.

This year, owing to the war, the arrival of many reports and returns from India has been considerably delayed.

The Statement has been greatly curtailed in accordance with the general policy of effecting economies in regard to parliamentary publications.

INDIAN CURRENCY AND WEIGHTS AND MEASURES.

Currency.—The silver rupee (containing 165 grains of fine silver and 15 grains of alloy and weighing in all 180 grains troy or 1 tola) was the sole standard of value until the 26th June 1893, when the Indian mints were closed to the unrestricted coinage of silver into rupees and it was notified that gold coin and bullion would be received at the mints in exchange for Government rupees at the rate of 7·53344 grains of fine gold for one rupee, being equivalent to a rate of exchange of 15 rupees per £1. In 1899 British gold coins were made legal tender side by side with rupees at that rate.

The Indian denominations with their British equivalents are—

Pie	= $\frac{1}{12}$ penny.
Pice (3 pies)	= 1 farthing.
Anna (12 pies)	= 1 penny.
Rupee (16 annas)	= 1*s.* 4*d.*

A lakh (lac) is 100,000 rupees and a crore is 100 lakhs.

Weights and Measures.—The weights adopted in Government transactions and by the railway companies are as follows:—

1 tola	= 180 grains	= 11·66 grams.
1 chittak (5 tolas)	= 900 „	= 58·32 „
1 ser (16 chittaks)	= $2\frac{1}{2}$ troy lb. (or $2\frac{2}{35}$ lb. avoir.)	= 933·10 „
1 maund (40 sers)	= 100 „ „ (or $82\frac{2}{7}$ „ „)	= 37·32 kgms.

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TABLE OF CONTENTS.

	PAGE
I. ADMINISTRATION AND LEGISLATION:	1–4
Administration	1
Legislation	1
II. JUSTICE AND POLICE:	5–8
Civil Justice	5
Crime and Police	5
Criminal Justice	7
Jails	8
III. FINANCE:	9–11
Form of Accounts	9
Revenue and Expenditure	9
Home Charges	9
Capital Outlay on Public Works	10
Debt	10
Currency and Exchange	10
IV. LAND REVENUE:	12–14
General	12
Tenant Right and Land Legislation	12
Revenue Surveys and Settlements and Land Records	12
Collection of the Revenue	13
V. REVENUE FROM TAXATION AND OPIUM:	15–19
Salt	15
Excise	16
Provincial Rates	18
Stamps	18
Income Tax	18
Customs	19
Registration	19
Opium	19
VI. AGRICULTURE:	20–23
Season and Crop Reports	20
Agricultural Produce	20
Co-operative Societies	21
VII. FORESTS	24
VIII. MINERAL PRODUCTION AND INSPECTION OF MINES	25
IX. MANUFACTURES:	26–27
Government and Industrial Development	26
Large Industries	26
Factory Legislation and Inspection	27
Patents and Designs	27
X. TRADE:	28–29
Foreign Seaborne Trade	28
Shipping and Freights	29
Land Frontier Trade	29
Joint Stock Companies	29
XI. PUBLIC WORKS:	30–34
General	30
Railways	30
Irrigation	31
Buildings and Roads (Civil)	33
XII. POSTS AND TELEGRAPHS:	35–36
Posts	35
Telegraphs	35
Telephones	36
Indo-European Telegraph Department	36
XIII. SCIENTIFIC DEPARTMENTS:	37–40
Board of Scientific Advice	37
Survey of India	37
Other Surveys	37
Meteorological Department	37
Agricultural Departments	38
Civil Veterinary Department	39
Archæological Department	40
Medical Research Institutes	40
Forest Research Institute	40
XIV. EDUCATION	41–43
XV. LOCAL SELF-GOVERNMENT:	44–47
General	44
Municipalities	44
District and Local Boards	46
Port Trusts	47
XVI. CONDITION OF THE PEOPLE:	48–52
Vital Statistics and Vaccination	48
Sanitation	49
Medical Institutions	50
Emigration	50
Migration	51
Prices	51
Wages	52
Famine or Scarcity	52
General Remarks	52
XVII. ARMY AND MARINE	53
XVIII. FRONTIERS AND NATIVE STATES	54–57
BIBLIOGRAPHY OF OFFICIAL REPORTS	58–60

CHAPTER I.—ADMINISTRATION AND LEGISLATION.

Administration.

The following were the holders of the most important appointments connected with the administration of India at the end of the year under review :—

I. In London.

Secretary of State.—The Most Hon. the Marquess of Crewe, K.G., P.C.
Permanent Under Secretary of State.—Sir T. W. Holderness, K.C.B., K.C.S.I.
Parliamentary Under Secretary of State.—Mr. Charles Roberts, M.P.
Members of the Council of India.—Lieut.-Col. Sir D. W. K. Barr, K.C.S.I.; Sir F. O. Schuster, Bart.; Sir T. Morison, K.C.I.E.; General Sir C. C. Egerton, G.C.B., D.S.O.; Sir S. W. Edgerley, K.C.V.O., C.I.E.; Mirza Abbas Ali Baig, C.S.I.; L. Currie; Sir F. W. Duke, K.C.I.E., C.S.I.; Sardar Daljit Singh, C.S.I.

II. In India.

Governor General of India.—The Right Hon. Baron Hardinge of Penshurst, P.C., G.C.B., G.M.S.I., G.C.M.G., G.M.I.E., G.C.V.O., I.S.O.
Members of Council.—General Sir Beauchamp Duff, G.C.B., K.C.S.I., K.C.V.O., C.I.E., Commander-in-Chief (extraordinary); Sir R. W. Carlyle, K.C.S.I., C.I.E.; Sir S. H. Butler, K.C.S.I., C.I.E.; Sir Syed Ali Imam, K.C.S.I.; Sir W. H. Clark, K.C.S.I., C.M.G.; Sir R. H. Craddock, K.C.S.I.; Sir W. S. Meyer, K.C.S.I., K.C.I.E.
Governor of Madras.—The Right Hon. Baron Pentland, P.C., G.C.I.E.
Members of Council.—Sir Pazhamanheri Sundaram Sivaswami Aiyar, K.C.S.I., C.I.E.; Sir H. A. Stuart, K.C.V.O., C.S.I.; A. G. Cardew, C.S.I.
Governor of Bombay.—The Right Hon. Baron Willingdon of Ratton, G.C.I.E.
Members of Council.—Sir R. A. Lamb, K.C.S.I., C.I.E.; C. H. A. Hill, C.S.I., C.I.E.; Prabhashankar Pattani, C.I.E. (temporary).
Governor of Bengal.—The Right Hon. Baron Carmichael of Skirling, G.C.I.E., K.C.M.G.
Members of Council.—P. C. Lyon, C.S.I.; Nawab Saiyid Shamsul Huda; N. D. Beatson Bell, C.S.I., C.I.E.
Lieutenant Governors.—United Provinces of Agra and Oudh, Sir J. S. Meston, K.C.S.I.; Punjab, Sir M. F. O'Dwyer, K.C.S.I.; Burma, Sir H. Adamson, Kt., K.C.S.I.; Bihar and Orissa, Sir C. S. Bayley, K.C.S.I., I.S.O.
Members of Council of Lieutenant Governor of Bihar and Orissa.—Sir E. A. Gait, K.C.S.I., C.I.E.; Sir E. V. Levinge, K.C.S.I.; Maharaja Bahadur Sir Rameswar Singh, K.C.I.E., of Darbhanga.
Chief Commissioners.—Central Provinces, Sir B. Robertson, K.C.S.I., K.C.M.G., C.I.E.; North-West Frontier Province, Lieut.-Col. Sir G. O. Roos-Keppel, K.C.I.E.; Assam, Sir Archdale Earle, K.C.I.E.; Delhi, W. M. Hailey, C.I.E.

Creation of a Legislative Council for the Central Provinces.—The first meeting of the newly constituted Council took place on the 17th August 1914.
Public Services Commission.—The Royal Commission on the Public Services in India completed its inquiries during the year under review.

Legislation.

I. In England.—Nil.

II. In India.

Between the 1st April 1914 and the 31st March 1915 the following enactments received the assent of the Governor-General of India:—Fifteen Acts passed by the Council of the Governor-General for making laws and regulations, eight by that of Madras, nine by that of Bombay, five by that of Bengal, two by that of the Punjab, four by that of the United Provinces of Agra and Oudh, three by that of Burma, two by that of Bihar and Orissa, one by that of Assam, two by that of the Central Provinces. One regulation was passed by the Governor-General in Council on the recommendation of the Local Governments of the provinces affected by them in accordance with the provisions of 33 Vict. c. 33.

(Governor-General's Council.)

The following are the measures referred to :—

Acts of the Governor-General's Council.

The Sea Customs (Amendment) Act (No. XII. of 1914) further amended the Act of 1878.

The Indian Life Assurance Companies (Amendment) Act (No. XIII. of 1914) amended the Act of 1912.

The Indian Post Office and Telegraph (Amendment) Act (No. XIV. of 1914) further amended the Indian Telegraph Act, 1885, and the Indian Post Office Act, 1898, in view of the amalgamation of the offices of Director-General of Telegraphs and Director-General of the Post Office.

The Indian Army (Amendment) Act (No. XV. of 1914) enacted certain rules respecting the disposal of the property of deceased persons and deserters.

The Indian Aircraft Amendment Act (No. XVI. of 1914) granted powers to prohibit or regulate the navigation of aircraft over or the entry of aircraft by flight into British India or Indian waters.

The Second Repealing and Amending Act (No. XVII. of 1914) made formal amendments in certain enactments and repealed others which had become obsolete.

The Emergency Legislation Continuance Act (No. I. of 1915) was passed to enable the provisions of certain ordinances to continue in force during the war and for six months thereafter.

The Sir Sassoon Jacob David Baronetcy Act (No. II. of 1915) settled certain securities, the property of Sir Sassoon Jacob David, Baronet, so as to support the dignity of a baronet lately conferred on him.

The Foreigners (Amendment) Act (No. III. of 1915) provided that a foreigner as defined may be apprehended and detained pending removal.

The Defence of India (Criminal Law Amendment) Act (No. IV. of 1915) provided for special measures to secure the public safety and the defence of British India, and for the more speedy trial of certain offences.

The Indian Paper Currency (Temporary Amendment) Act (No. V. of 1915) temporarily amended further the Act of 1910.

The Indian Patents and Designs (Temporary Rules) Act (No. VI. of 1915) extended the powers of the Governor-General in Council during the war to make rules under the Act of 1911.

The Delhi Laws Act (No. VII. of 1915) declared the law in force in certain territory added to the Province of Delhi.

The Assam Labour and Emigration (Amendment) Act (No. VIII. of 1915) further amended the Act of 1901 and abolished the system of recruitment by licensed contractors.

The Sea Customs (Amendment) Act (No. IX. of 1915) amended the Act of 1878 as to removal of goods from warehouse.

Acts of the Provincial Legislative Councils.

Madras.—*The Madras Land Revenue Assessment (Amendment) Act (No. II. of* 1914) authorised any officer specially empowered by Government to exercise the functions of a District Collector under the Act of 1876 in respect of alienated portions of a permanently settled estate.

The Madras Proprietary Estates' Village-Service (Amendment) Act (No. III. of 1914) made amendments to the original Act mainly consequential on the abolition of the cess and separate fund from which estate village servants were previously paid.

The Madras Medical Registration Act (No. IV. of 1914) provided for the optional registration of qualified medical practitioners in Madras Presidency.

The Canals and Public Ferries (Amendment) Act (No. V. of 1914) empowered the Local Government to exempt vessels from being licensed or registered under section 5 of the Act of 1890.

The Tirupati Devasthanam Schools Act (No. VI. of 1914) removed doubts as to the legality of the maintenance of certain schools out of Devasthanam funds and confirmed past expenditure.

The Madras Deputy Collectors Act (No. VII. of 1914) defined more clearly the powers of Deputy Collectors appointed under the Madras Uncovenanted Officers Act, 1857.

(Provincial Legislative Councils.)

The Madras Decentralization Act (*No. VIII. of* 1914) facilitated the administration of certain enactments.

The Madras Abkari (*Amendment*) *Act* (*No. I. of* 1915) defined more clearly the term "denatured" spirit occurring in the Madras Abkari Act, I. of 1886.

Bombay.—*The Karachi Port Trust* (*Amendment*) *Act* (*No. I. of* 1914) further amended the Act of 1886.

The Bombay Irrigation (*Amendment*) *Act* (*No. II. of* 1914) added a new part to the Act of 1879 to apply to second-class irrigation works.

The Bombay Tramways (*Amendment*) *Act* (*No. III. of* 1914) provided further for housing, storage, maintenance, and repairs, and added a new schedule to that of 1874.

The Aden Port Trust (*Amendment*) *Act* (*No. IV. of* 1914) amended two sections of the Act of 1888, and specified where moneys should be deposited.

The Bombay Civil Courts (*Amendment*) *Act* (*No. V. of* 1914) further amended the Act of 1869.

The Bombay Port Trust (*Amendment*) *Act* (*No. VI. of* 1914) reorganized the constitution of the Board and repealed section 31 of the Act of 1879.

The Bombay Land Revenue Code (*Amendment*) *Act* (*No. VII. of* 1914) granted suspensions or remissions to inferior holders when payment of the whole or part of the Government land revenue by the superior holder is suspended or remitted, but allowed the superior holder to take the crop-share fixed by custom or agreement. It explained the meaning of assessment, and excluded Sind from the operation of the Act.

The Bombay District Municipal (*Amendment*) *Act* (*No. VIII. of* 1914) specified persons qualified as candidates and voters, and enacted that enrolment in the Municipal Election Roll should be necessary for qualification as an elected councillor. It made several further amendments and added a new chapter on the powers and duties of the Municipal Commissioner.

The Bombay Town Planning Act (*No. I. of* 1915) regulated the making and execution of town-planning schemes, as well as their cost, and provided for the appointment and duties of an arbitrator and tribunal of arbitration.

Bengal.—*The Chittagong Port Act* (*No. V. of* 1914) consolidated and amended the law relating to the Port of Chittagong.

The Bengal Medical Act (*No. VI. of* 1914) provided for the registration of medical practitioners in Bengal.

The Bengal Excise (*Amendment*) *Act* (*No. VII. of* 1914) extended the Act of 1909 to Eastern Bengal, and made numerous amendments to that Act.

The Calcutta Port (*Amendment*) *Act* (*No. I of* 1915) provided for the grant of a pension to the Vice-Chairman.

The Bengal Steam-boilers and Prime-movers (*Amendment*) *Act* (*No. II. of* 1915) empowered the Local Government to make rules for carrying out the purposes of the Act of 1879 and made certain other amendments.

Punjab.—*The Punjab Courts Act* (*No. III. of* 1914) amended and consolidated the law relating to Courts in the Punjab.

The Punjab Courts (*Amendment*) *Act* (*No. IV. of* 1914) defined the period of limitation for an appeal.

United Provinces.—*The United Provinces Excise* (*Amendment*) *Act* (*No. III. of* 1914) defined "intoxicating drugs" and amended the Act of 1910.

The United Provinces Excise (*Amendment*) *Act* (*No. I. of* 1915) further amended the Act of 1910 and gave the present Act retrospective effect for the purpose of validating things done.

The United Provinces District Boards (*Amendment*) *Act* (*No. II. of* 1915) amended the Act of 1906 and empowered the Local Government to make rules to regulate offensive trades.

The United Provinces Steam-boilers Act (*No. III. of* 1915) amended the law providing for the inspection and management of steam-boilers and prime-movers, and enabled provision to be made for the inspection and management of internal combustion engines and certain other machinery.

Burma.—*The Burma Village* (*Amendment*) *Act* (*No. I. of* 1914) provided for the surrender of offensive weapons to the headman on demand at a *pwe*.

The Burma Outports Act (*No. II. of* 1914) provided for the levy of dues upon goods in the outports of Burma.

(Provincial Legislative Councils.)

The Burma Canal (Amendment) Act (No. III. of 1914) amended the Act of 1905 in respect of Village Canals and Drainage Works.

Bihar and Orissa.—*The Jharia Water Supply Act (No. III. of* 1914) provided for the construction and maintenance of waterworks, and for the supply of water for domestic purposes to the Jharia Coal Fields, and for the constitution of a Water Board invested with powers for carrying out the objects of the Act.

The Bihar and Orissa Public Demands Recovery Act (No. IV. of 1914) consolidated and amended the law relating to the recovery of public demands.

Assam.—*The Assam Local Self-Government Act (No. I. of* 1915) made better provision for local self-government.

Central Provinces.—*The Central Provinces General Clauses Act (No. I. of* 1914) facilitated the interpretation and shortened the language of Central Provinces Acts.

The Central Provinces Court of Wards (Amendment) Act (No. I. of 1915) amended the Act of 1899.

Regulation.

The Excise Regulation (No. I. of 1915) consolidated and amended the Excise Law in force in Ajmer-Merwara, Coorg and British Baluchistan.

CHAPTER II.—JUSTICE AND POLICE.

(For further details see Statistical Abstract for British India, Tables 24 to 42.)

Civil Justice.

Bengal.—The number of original suits instituted in the mufassal courts in 1914 was smaller than in 1913. There was no improvement in the average duration of suits. Out of 14 appeals to the Privy Council seven were affirmed and seven reversed.

Assam.—The number of original suits instituted showed a decrease, the number of suits pending an increase, in spite of an increase in the number disposed of. There was a general increase in the average duration of suits.

North Western Provinces.—The number of suits instituted somewhat increased. The average duration for all courts was 83 days for contested, and 45 for uncontested, suits, as compared with 89 and 44 days respectively in 1913. There was a decrease in the number of cases pending at the end of the year.

Oudh.—There was a slight decrease in the number of institutions.

Central Provinces and Berar.—The number of suits instituted decreased. There has been a further satisfactory reduction in the number of pending suits. The average duration of suits was less.

Punjab.—The old Divisional system was abandoned during the year and District and Sessions Judges were introduced. The number of suits instituted was rather above the average. There were eight appeals to every 100 suits decided. The average duration of suits was less. It is proposed to amend the Insolvency Act, in the working of which there are various defects.

Bombay.—The number of suits instituted in all the Courts showed an increase, with a much greater increase in aggregate value. There was a slight decrease in the number of suits left pending at the close of the year. The average duration of contested suits fell from 210 to 191 days, but that of uncontested suits rose from 95 to 101.

Madras.—The number of suits instituted was slightly larger. In the suits disposed of in 1914 the percentage of plaintiffs who succeeded in obtaining decrees for the whole or part of the relief claimed was 76. The total number of appeals preferred was somewhat greater than in 1913. The average duration of suits was generally higher. The proportion of suits for money or movable property to those for immovable property was larger.

Burma.—The number of original suits instituted rose slightly. The average duration of suits was much the same as in 1913. Difficulties occurred in the working of the Insolvency Act.

Bihar and Orissa.—The number of original suits instituted showed a decrease. There was a general increase in the duration of suits tried. The pending file of original suits at the close of the year was considerably reduced.

North-West Frontier Province.—The number of suits instituted was the largest yet recorded. The average duration of original contested suits was 36 days, as compared with 46 days in 1913.

Coorg.—The number of suits decreased, while the average value rose.

Crime and Police.

Madras.—Food grains were somewhat cheaper in 1914 and there was a fall in crime, especially grave crime, though the number of murders rose from 689 to 704. Two serious riots arose from ill-feeling between Muhammadans and Hindus, and two small riots in Jeypore from the seditious preachings of German missionaries. Dacoities increased. Six new gangs were declared criminal tribes.

The total sanctioned strength of the police increased to 32,937. Recruiting continued difficult, pay and prospects being insufficiently attractive to men of the requisite character, physique and literacy. Casualties were again less numerous. The decrease in punishments continued. The cost of the Department rose from £610,713 to £633,511. The cost is twice as great as in 1905 when police reform began.

(Crime and Police.)

Bombay.—There was a general marked diminution of crime in 1914, the number of cognisable cases reported amounting to 32,876, as compared with 36,950 in the previous year. Murders declined by 61 to 406 and dacoities by 13 to 186.

There was an increase in the police force, but the total provided for by the reorganisation scheme has not yet been reached. The cost of the police rose to £475,170.

It was discovered by the police that various companies had made considerable fortunes from the cotton fires in Bombay.

Bengal.—Political crime was again an important feature of the year. The number of cases of revolutionary crime was 12, including 7 dacoities, 2 bomb cases, and 3 assassinations of police officers by shooting. Murder cases increased by 102 to 588. Two were due to the anarchist group. Dacoity cases increased by 74 to 425 owing to unrest ascribed to the war. With regard to crime generally, the number of true cases reported decreased in spite of disturbing conditions.

The number of recruits was less than in 1913 and difficulty in recruitment still obtains. Higher rates of pay have been brought into force. Discipline has improved and that of the battalion of military police — which has been reorganised — was excellent. The actual expenditure for the financial year 1914–15 was £622,466 as against £522,867 in 1913–14. The increased cost was largely due to reorganisation and reforms in Eastern Bengal. The sanctioned strength of the subordinate police, excluding the Criminal Investigation Department, was, on 31st December 1914, 21,028 as against 20,146 in the previous year. The force is undermanned as compared with the forces in other important provinces.

United Provinces.—Bad agricultural conditions giving rise to scarcity and high prices, and unrest consequent on the war, were reflected in the crime statistics, and the rise in the volume of reported crime was substantial. There was an increase of 11,583 in burglaries and murders rose from 641 to 710. Kidnapping cases increased by 65 to 550. In 323 out of 767 dacoities arms were used. There was no further political trouble. An unsatisfactory feature of the year's work was the decline to 38·8 in the percentage of convictions in cases investigated by the police. A special Criminal Tribes section of the Criminal Investigation Department has been established. The rise in prices has rendered the pay of the police inadequate and recruiting is therefore difficult. The total cost of the police in 1914 was £578,470.

Punjab.—The decrease in crime, which was first noticed in 1913, was maintained, the number of true cognizable cases (excluding the figures for the new Delhi province) being 47,375, a decline of 501. A satisfactory feature was the decline in murders from 625 to 538. Revolutionary crime, due to external propaganda, was a novel feature. Two police officers were shot by returned emigrants. The people have cordially co-operated with the police. There was a substantial increase in the sanctioned strength of the force, and a rise in police expenditure of £17,100 to £390,000.

Assam.—The number of true cases rose from 11,771 in 1913 to 12,350 in 1914.

The total sanctioned strength of the police force rose during the year from 3,418 to 3,555, and the cost of the Department from £154,952 to £155,474. Gurkhas form 80 per cent. of the recruits for the military police. It is hoped that the recent increase of pay will attract more recruits for the civil police. Recruitment was still difficult.

Central Provinces and Berar.—Unfavourable economic conditions resulting from bad crops and the outbreak of war led to a marked increase in crime, mainly under theft and house-breaking. Murders increased from 225 to 245 and dacoities from 49 to 55. There was a considerable increase in the total number of reported cases.

The sanctioned strength of the force was slightly increased during the year and the cost of the Department was £227,477. Recruiting was still not satisfactory.

Burma.—There was a slight decrease in cognizable cases and a marked decrease in the number of violent crimes. The force was 1,129 below sanctioned strength and recruiting was difficult. The reorganisation of the police has not improved the personnel, as pay and other conditions are insufficiently attractive. The total cost in 1914 was £404,121.

Bihar and Orissa.—The total number of cognizable crimes reported during the year 1914 was 62,363, representing a slight increase on the corresponding figures for 1913. There were two cases of political crime. The Criminal Investigation Depart-

ment was reorganised. The number of serious offences generally increased, though there was a decline in murders and dacoities.

The sanctioned strength of the police force was 13,866 against 13,522 in 1913. The cost rose from £306,880 to £323,453.

North-West Frontier Province.—The fall in cognizable crime, especially serious crime, was marked. In spite of the war there were no political offences. Cases of murder, attempts at murder and culpable homicide numbered 433 and there were 62 dacoities. Kidnapping cases decreased from 48 in 1913 to 39.

As regards the working of the ordinary police better results have been obtained than in any year since 1908. The force was increased during the year. The difficulties of recruiting have been much increased by the war. The wastage among the men is still great.

Coorg.—The number of cognizable offences reported (576) was the highest yet recorded. The number of murder cases, 13, was high. There were 6 convictions for murder and 3 for culpable homicide.

Criminal Justice.

Bombay.—There was a trifling decrease in the number of criminal cases disposed of during 1914, and the total number of offences reported also showed a decrease. 62 persons were sentenced to death as compared with 65, while 204 as against 251 were condemned to transportation. In 43 per cent. of the appeals, the appeals were rejected and in 18·3 per cent. the sentences were reversed.

Madras.—The number of original cases instituted in criminal courts in 1914 showed a considerable decline, but the number of appeals rose slightly. The jury system is reported to have worked with only moderate success. There were 48 sentences of death and 218 of transportation.

Bengal.—There was a decrease in the number of criminal offences reported. Forty persons, 30 in Bakarganj and 10 in Calcutta, were under trial for offences against the State. Of these 12 were convicted, 17 acquitted, and 11 remained under trial. There were 6 death sentences and 176 sentences of transportation.

Assam.—During the year 44,819 offences were reported to the criminal courts, against 41,767 in 1913. 19,746 cases were brought to trial as compared with 19,520 in the previous year. In the High Court, 4 appeals were pending, 91 appeals were preferred during the year, and 89 disposed of, leaving 6 pending at the close. In only 8 of the appeals disposed of were the original convictions varied.

Punjab.—There was an appreciable reduction in 1914 in the number of reported offences and true cases, and an improvement in the proportion of cases which were actually brought to trial. The time of the courts is still greatly wasted by false cases supported by false witnesses. The number of persons dealt with by the Chief Court on appeal rose by 641 and on revision fell by about 300. In 250 of the appeal cases the original sentence was reversed. The number of murder references disposed of by the Chief Court rose from 165 to 212. The sentences on 150 out of the 242 persons involved were confirmed.

North-West Frontier Province.—The number of offences admitted to have occurred in 1914 showed a very satisfactory decrease. The highest percentage of serious crime is in Kohat. Capital sentences were passed by the Sessions Judges on 40 persons, against 59 in 1913, and in 30 cases the sentences were confirmed by the Judicial Commissioner.

North-Western Provinces.—Under the Indian Penal Code the total number of offences reported was 111,452 as against 109,887 in 1913, and of cases returned as true 80,591 as against 79,917. The number of persons under trial was 158,296 as against 147,863 in 1913. The increase is ascribed to the unfavourable agricultural conditions. There was an increase in the number of appellants before the High Court.

Oudh.—There was a considerable increase in the offences reported and returned as true and brought to trial. Eight appeals were filed by Government from orders of acquittal against 14 persons. With regard to 4 persons the appeals were dismissed, 2 were convicted, and in the case of the remaining 8 a retrial was ordered.

(Criminal Justice.)

Coorg.—The number of cases brought to trial showed little variation, and the number of offences reported decreased by 16. Fifty persons were found guilty of heinous crime, and eight of them were convicted of murder, one being hanged and seven transported for life.

Central Provinces and Berar.—According to the new method of calculation introduced in 1913 the total number of offences reported fell by one per cent. to 43,896, the first decrease since 1910. As regards original jurisdiction, the percentage of persons convicted to the total number whose cases were disposed of increased from 39·2 to 41·5. The number of appeals by convicted persons to the Superior Court rose from 388 to 412; in 86·6 per cent. of the appeals disposed of the finding, and in 71·3 per cent. the finding and sentence, of the Lower Courts were confirmed.

Burma.—There was a very satisfactory decrease in the number of cases reported and classified as true in Lower Burma under the Indian Penal Code. In Upper Burma the number of offences reported rose, chiefly owing to the greater activity displayed in prosecutions under the Municipal Act. Dacoities declined from 181 to 126, and the number of cases affecting life from 490 to 435. The percentage of convictions in cases committed to the Chief Court was 54 per cent.

Bihar and Orissa.—There was an increase to 114,053 in cases reported, of which 80,888 were found to be true and 63,891 were brought to trial. In the appellate jurisdiction the High Court decided 288 appeals against sentences of Courts of Session. It upheld in 217, and reversed in 20, instances the orders passed. The percentage of appellants entirely unsuccessful was 75, against 71 in 1913.

Jails.

The number of admissions to jails during the year was 516,098, and 509,638 persons were discharged, leaving a population on the 31st December 1914 of 112,015.

The number of convicts admitted was 168,723; 159,668 were released, and 1,319, as against 1,566 in 1913, transported beyond the seas; leaving a population on the 31st December 1914 of 98,963.

The daily average number of prisoners, which had steadily decreased since 1908, rose in 1914 to 108,181 from 103,090.

More than one-half of the total number of convicts received in jails during the year came from the classes engaged in agriculture and cattle-tending, and over 141,000 out of 169,000 were returned as illiterate.

The percentage of previously convicted prisoners was 19·82 as against 17·29 in 1913, while the number of youthful offenders fell from 626 to 505. The marginal table shows the nature and length of sentences of convicts admitted to jails in 1914.

Not exceeding one month -	43,685
One month to six months -	66,113
Six months „ one year - -	31,284
One year „ five years - -	21,989
Five years „ ten „ - -	2,619
Exceeding ten years - -	250
Transportation beyond seas :—	
(*a*) for life - - -	1,308
(*b*) for a term - - -	720
Sentenced to death - - -	831

The number of offences committed by convicts increased.

The total daily average population for 1914 was 95,260; the total offences dealt with by criminal courts was 192, and by Superintendents 176,277. The corresponding figures for 1913 were 90,282, 176, and 180,369 respectively.

The total number of corporal punishments again showed a decrease, viz., from 361 to 352. The total number of cases in which penal diet (with and without solitary confinement) was prescribed was 7,594 as compared with 7,568 in the preceding year.

Total expenditure rose from £571,364 to £618,588, and total cash earnings increased from £97,819 to £109,845; there was, consequently, an increase of £35,198 in the net cost to Government.

The death rate increased from 15·52 per mille in 1913 to 17·98 in 1914. The admissions to hospital were somewhat higher, and the daily average number of sick rose slightly. The chief causes of death were tubercle of the lungs, dysentery and pneumonia.

CHAPTER III.—FINANCE.

(*For further details, see East India Financial Statement; Accounts and Estimates, Explanatory Memorandum; Statistical Abstract for British India, Tables* 44 *to* 89.)

Form of Accounts.

The accounts of the Government of India show the transactions in India in rupees; the totals of these transactions are then converted into pounds at the rate of Rs. 15 = £1: the sterling transactions in England are next stated: and the last two sets of figures are added together, so as to show in pounds the combined transactions in India and in England. The comparatively small sums which have to be brought to account owing to the fact that the remittances to defray the net expenditure in England are not effected at exactly sixteenpence to the rupee are included in a single line under the head of Exchange.

Revenue and Expenditure.

The Gross Revenue and Expenditure in 1913–14 and 1914–15 were as shown in the margin. In these figures all receipts are included in the total of revenue and all outlay in the total of expenditure, except that the working expenses of railways and the surplus profits paid to certain railway companies are treated not as expenditure but as a deduction from Revenue. Net Revenue and Expenditure are arrived at after deducting the interest charges as well as the working expenses of the railways, the interest charges and working expenses of irrigation works, the cost of the cultivation and manufacture of opium, and the charges against other revenue-earning departments (excluding cost of collection) from revenue, and the receipts of spending departments from expenditure.

	1913–14.		1914–15.	
	£		£	
Revenue - -	85,207,175		81,157,666	
Expenditure - -	82,894,752		82,942,936	
	Surplus	£2,312,423	Deficit	*£1,785,270*

The net revenue of 1913–14 and 1914–15 and the expenditure charged against the revenue of those years were divided into Imperial and Provincial as follows:—

	1913–14.			1914–15.		
	Imperial.	Provincial.	Total.	Imperial.	Provincial.	Total.
	£	£	£	£	£	£
Net Revenue -	31,791,279	26,054,785	57,846,064	27,951,570	25,231,859	53,183,429
Net Expenditure -	29,478,856	26,054,785	55,533,641	29,736,840	25,231,859	54,968,699

The equilibrium between Provincial Revenue and Provincial Expenditure, which is shown in these figures, is due to the fact that, if the Provincial Governments spend less in any year than their income, the saving is added to their balances and treated in the general accounts prepared by the Government of India as though it had been spent, and that similarly excess expenditure by Provincial Governments, being met from their balances, is not charged in the accounts prepared by the Government of India against the revenues of the year. In 1913–14 the Provincial Governments drew on their balances to the extent of £282,886, in 1914–15 to the extent of £2,190,152.

(For fuller information regarding Provincial Finance, *see* Decennial Report, 1911–12, pages 145–8.)

Home Charges.

The net expenditure in England chargeable to revenue was as follows:—In 1913–14, £19,455,055; and in 1914–15, £19,525,856.

(Capital Outlay on Public Works.)

Capital Outlay on Public Works.

The total capital outlay on railways, irrigation works, and the new capital of Delhi during the two years was as follows:—

	1913–14.	1914–15.
Capital not charged against the Revenue of the year:—	£	£
Railways	10,483,200	10,509,858
Irrigation	1,282,262	1,123,180
New capital of Delhi	447,134	360,361
Defrayed from Revenue:—		
Railways	9,990	— *852*
Irrigation	590,288	570,509
Outlay by companies	2,002,303	1,342,253
Total Capital Outlay on Railways, Irrigation, and Capital at Delhi £	14,815,177	13,905,309

Debt.

Amount of Debt.—The total debt of India outstanding on the 31st March 1914 and the 31st March 1915 amounted to:—

	1914.	1915.
(*a*) Permanent debt*:—	£	£
Total of Public Works debt	261,992,337	275,245,288
Balance, being ordinary debt	12,196,099	1,926,083
Total permanent debt	274,188,476	276,541,371
(*b*) Temporary debt	Nil.	14,333,333
Total debt (permanent and temporary) on 31st March	£274,188,476	£280,874,704

1914–15.—In England £500,000 India bonds were discharged during the year. No sterling loan was raised, but £7,000,000 sterling bills were issued in September and November 1914 (£4,500,000 for twelve months and £2,500,000 for six months). In addition £2,318,248 was raised by means of Railway debenture stock and £998,750 by means of Railway debenture Bonds.

In India a 3½ per cent. rupee loan of 5 crores (£83,333,300) was issued in July at an average price of Rs. 95 : 9 : 7.

The borrowing powers of the Secretary of State for India in Council are regulated by Acts of Parliament, the last being the East India Loans (Railways and Irrigation) Act, 1910, under which powers were granted to borrow in the United Kingdom, as and when necessary, up to £25,000,000 for the purposes of Indian public works.

Currency and Exchange.

The rupee (180 grains of silver, eleven-twelfths fine) and the half rupee are full legal tender for the payment of debts. The coinage of rupees is restricted to the amounts that are from time to time decided by Government to be sufficient to meet the requirements of the public. The English sovereign is also legal tender in India, at the rate of one sovereign to fifteen rupees (*i.e.*, 1*s.* 4*d.* to the rupee).

* The total permanent debt is classified in the accounts as (1) Public Works Debt, (2) Ordinary Debt. The amount entered as belonging to the former category is the equivalent of the total capital expenditure which has been incurred on public works by the State, together with the amounts advanced to railway companies for capital expenditure; the "Ordinary Debt" consists of the remainder of the debt. In any year in which, owing to the use of surplus revenue or deposits for the construction of public works, the capital expenditure of the year exceeds the amount of debt incurred in the year, the effect is to cause a decrease to be shown in the amount of the Ordinary Debt.

Gold Standard Reserve.—From the 1st April 1900 the net profit from the coinage of rupees has been held as a special reserve, apart from the ordinary revenue, to secure the maintenance of exchange at the rate of 1*s.* 4*d.* to the rupee. It may serve this purpose either (1) by providing the Secretary of State with funds enabling him to dispense with sales of Council drafts when the demand for these is weak, or (2) by enabling him to meet drafts sold on London by the Government of India for the support of exchange. The constitution of the Reserve on the 31st March 1915 was as follows :—

	£
Sterling securities held in England (estimated value)	12,148,746
Cash held in England on account of the Reserve -	8,322
Gold held at the Bank of England - - -	1,250,000
Sovereigns held in India on account of the Reserve -	5,238,184
Temporary loans to Treasury balance, India - -	7,000,000
Due to the Fund from Treasury balances in India -	69,957
Total - - - -	£25,715,209

(Further information regarding Currency, Exchange, and the Gold Standard Reserve will be found in the Decennial Report, 1911–12, pages 164–9, and in the Report of the Royal Commission on Indian Finance and Currency, Cd. 7068, 1913.)

Exchange and Remittance.—During the years 1912–13, 1913–14, and 1914–15 the sale by the Secretary of State of bills and telegraphic transfers on India was as shown in the margin.

	Amount.	Average Rate.
	£	Per rupee.
1912–13 -	25,743,710	1*s.* 4·058*d.*
1913–14 -	31,200,827	1*s.* 4·070*d.*
1914–15 -	7,748,111	1*s.* 4.005*d.*

The regular demand for the bills and telegraphic transfers sold by the Secretary of State is due to the fact that they enable merchants and bankers to make the payments in India which are required mainly in consequence of the normal excess of India's exports over her imports. During the last eight months of 1914–15 the demand was greatly reduced by the disturbing influence of war conditions upon India's trade and upon exchange. Reverse drafts on London were sold to the amount of £8,707,000 in the months August 1914 to January 1915.

Paper Currency.—Under the Indian Paper Currency Act, 1910 (II. of 1910), which consolidated and amended the law relating to paper currency, notes of the following denominations, viz., Rs. 5, Rs. 10, Rs. 50, Rs. 100, Rs. 500, Rs. 1,000, and Rs. 10,000 are issued to the public. The issue of 20-rupee notes has been discontinued.

There are seven currency circles having their headquarters at Calcutta, Cawnpore, Lahore, Bombay, Karachi, Madras, and Rangoon respectively.

Prior to the passing of the Paper Currency Act of 1910 the 5-rupee note alone was legal tender throughout India and payable at any office of issue in the country; notes of higher value were legal tender only within the currency circles in which they were issued. The Act of 1910 "universalised" notes of a denominational value of 10 and 50 rupees, and thus marked an important stage in the development of the paper currency system of India. The 100-rupee note was also made universal from the 1st April 1911. A reserve is held against the notes equal to their full value in (1) gold, (2) silver, and (3) securities (value taken at cost price). The law in force at the end of the year under review provided that securities of the Government of India and of the British Government might be held as part of the reserve up to a limit of £13,333,333 (Rs. 20,00,00,000), of which the British Government securities might not exceed £2,666,667 (Rs. 4,00,00,000); the remainder of the reserve must be held in gold or silver coin or bullion. On the 31st March 1915 the note issue amounted to Rs. 61,63,00,000. The constitution of the Paper Currency Reserve was as follows :—

	£
Gold - - - - - - -	10,193,333
Silver coin - - - - - -	21,560,000
Securities of the Government of India - - -	6,666,667
Securities of the British Government - - -	2,666,667
	£41,086,667

(Land Tenures.)

CHAPTER IV.—LAND REVENUE.

(For further details see Statistical Abstract of British India, Tables 45 *to* 49 *and* 120.)

General.

From time immemorial a share of the produce of the land has been the chief source of public revenue in India, and the land revenue now constitutes more than one-third of the total net revenue that accrues to the Indian Exchequer.

The early settlements of land revenue were permanent, but at length over the greater part of India a system of periodical settlements was established, under which the State demand is revised at recurring periods of 20 to 30 years, the latter period prevailing in all the larger provinces except the Punjab, the Central Provinces, and Burma, where settlements are usually made for 20 years. No alteration in assessments may be made during the term of a settlement, though the amount leviable year by year may vary according to the area actually cultivated or the condition of the harvest. A table showing the incidence of land revenue assessments in the different provinces is given in the Statistical Abstract. At these settlements careful surveys are made of all holdings and records of rights in the land. Under the system of periodical revisions of the land assessment the State secures a share in the increased rental value arising from the general progress of the community, and the opportunity is afforded of reducing the assessment in villages or tracts which have declined in prosperity, and of correcting inequalities arising from any cause.

Tenant Right and Land Legislation.

Bengal and Bihar and Orissa.—Landlords still tend to withhold rent receipts in Bengal and Bihar. The levy of illegal exactions in the form of cesses in addition to rents is still a subject of complaint. In the Gaya district of Bihar there have been many disputes arising out of produce rent, and a thorough examination of the provisions of the Act regarding such rents is to be undertaken. Chota Nagpur was given in 1908 a Tenancy Act of its own ; its amendment is under consideration.

United Provinces.—The continued protection against arbitrary ejectment which is afforded by the Agra Tenancy Act was indicated by a rise during the year of 155,756 acres in the area held by occupancy tenants, by tenants of more than 12 years who have a potential occupancy right, and by long-term lessees. This increase has been constant since 1901–02.

Punjab.—The working of the Land Alienation Act has occasioned no special difficulty. The permanent rights in land are returning to the hands of the cultivating classes, and the capital of the money-lending classes is being more freely devoted to the land under approved forms of security.

Bombay.—The amendment of the Deccan Agriculturists' Relief Act, 1905, was under consideration. The area of land held on the special tenure created by the Act of 1901 steadily expands. Evasions of the conditions of the tenure were few.

Revenue Surveys and Settlements and Land Records.

Bengal.—The preparation of a complete survey and record of rights for the permanently settled area was inaugurated in 1891. Out of the total settled area of 63,893 square miles to which the Bengal Tenancy Act applies, the record had by September 1914, been completed for 15,449 square miles, and was in course of preparation for a total of 10,446 square miles. In permanently settled tracts (where the record is for the purposes of general well-being and not for assessment of revenue), three-fourths of the cost is recovered from the landlords and tenants concerned.

Bihar and Orissa.—The total area for which a Record of Rights had been completed by 30th September 1914 was 65,296 square miles out of about 78,000 square miles for which a record is required.

Assam.—The survey and settlement of the Guma Duar of Goalpara was completed.

United Provinces.—During 1913–14 the revision of settlements in Etawah, Fatehpur, and Allahabad was continued.

Punjab.—Settlement operations were in progress in ten districts. Settlement work in Amritsar, Ferozepore, Hoshiarpur and Lyallpur was completed. Enquiries made in the nine most recently assessed districts, in which the demand is fixed, tend to show that the proportion borne by the land revenue demand to the total value of the agricultural produce is considerably less than one-tenth.

(Revenue Surveys and Settlements and Land Records.)

North-West Frontier Province.—Records of Rights were reported to be in good condition: the Land Records Staff was chiefly employed on mutation work.

Burma.—Settlement operations extended to ten districts. Revised rates were sanctioned following the settlements in the Bassein and Toungoo districts. The enhancements of revenue demand were nearly 24 per cent. in the former and 40 per cent. in the latter. The area under supplementary survey was 51,444 square miles in 1914–15. The cost of the settlements completed during the year was slightly under 4½ per cent. of the assessment.

Central Provinces and Berar.—Operations for the revision of settlement were in progress in five districts. It has been found in Saugor district that large areas of good land were allowed to lie waste partly in order to escape assessment at re-settlement. The preparation of the new Record of Rights in Berar, which is nearing completion, is being keenly watched by the people.

Madras.—A committee was appointed to investigate the working of the Survey and Land Records Department with the view of rendering the procedure simpler, cheaper, and more efficient.

Bombay.—The survey and settlement officers were engaged in the measurement and classification of *inam* villages and work of a routine character. Good progress was made with the re-writing of the Record of Rights. City survey work was conducted in several towns.

Collection of the Revenue.

The fluctuations in the gross land revenue receipts (exclusive of those credited to irrigation) in past years may be seen from the marginal table. The small general increase in land revenue is mainly attributable to the bringing of new land under cultivation, as in Lower Burma, the Central Provinces, Sind, and the Punjab, and to the progress of settlements and re-settlements, which, owing to the generally enhanced values of land, usually result in additions to the land revenue. Irrigation canals have enabled the cultivable area to be greatly extended, especially in Sind and the Punjab.

Year.	Land Revenue Receipts.
	£
1906–7 to 1910–11 (five years' average) -	20,096,000
1911–12 (single year) - - -	20,765,000
1912–13 „ „ - - -	21,282,000
1913–14 „ „ - - -	21,392,000
1914–15 „ „ - - -	21,222,000

The land revenue receipts in 1913–14 and 1914–15 were made up as follows:—

	1913–14.	1914–15.
	£	£
Ordinary land revenue - - - -	20,658,326	20,468,456
Assessment of alienated lands, less quit-rents* -	650,077	643,285
Sale of proprietary right of Government in land† -	154,032	56,233
Capitation tax, or house tax levied in lieu thereof‡ -	666,880	653,201
Sale of waste lands and redemption of land revenue	61,501	222,853
Recovery of survey and settlement charges§ -	132,493	120,042
Fisheries and other receipts - - - -	752,640	725,333
	£23,075,949	£22,889,403
Deduct portion of land revenue due to irrigation -	1,684,374	1,667,864
Total land revenue - - - -	£21,391,575	£21,221,539

The charges in 1914–15 included £1,760,415 for district administration, £532,295 for survey and settlement charges, £988,973 for land records, and £630,695 direct charges of collection. The total charges were £3,914,018.

The advances made by Government to cultivators during 1914–15 (for the relief of agriculturists, for the improvement of land and for loans to co-operative societies) amounted to £1,319,652, and the advances outstanding at the close of the year amounted to £3,447,450.

* Mostly from Bombay. † Mostly from the Punjab. ‡ Mostly from Burma.
§ From Bengal and Bihar and Orissa.

(Collection of the Revenue.)

Bengal. — The revenue demand for 1914–15, excluding arrears, amounted to £1,824,502, including £1,439,251 from 91,659 permanently settled estates, £108,066 from 3,179 temporarily settled estates, and £277,185 from 2,173 estates under the direct management of Government. The percentage of total collections on total demand (including arrears) was 93·04 per cent. Remissions were trifling. The number of estates, &c. which became liable to sale for non-payment of Government revenue rose to 13,713, of which only 861 were actually sold. Under the Certificate Act of 1913, 59,560 certificates were filed for recovery of arrears of revenue (exclusive of cess); payment was generally secured on issue of notices or on attachment of property, but actual sale was necessary in 2,082 cases.

Bihar and Orissa.—The total current demand was £1,006,032, viz., £711,822 from 94,559 permanently settled estates, £175,436 from 10,265 temporarily settled estates, and £118,774 from 281 estates held by Government. The percentage of total collection on total demand was 97·10. Proceedings under the sale laws included 338 sales out of 8,458 estates which became liable to sale, while under the Public Demands Recovery Act, 32,608 certificates were filed; in 1,805 cases recourse to sale was necessary.

Assam.—The current revenue demand was £485,892, of which 94·27 was realised. Demand notices showed a large decrease, such notices being entirely discontinued in the temporarily settled areas of the Assam Valley.

United Provinces.—The land revenue demand in 1913–14 (the latest year for which information is available) was £4,340,474. Owing to the drought and scarcity £319,286 was remitted, and £331,217 suspended or postponed. Other sources of revenue, not strictly classed as land revenue, are the occupiers' rate (receipts, £650,468) and the owners' rate (receipts, £11,754), which constitute payments for irrigation, besides cesses, &c. Advances under the Loans Acts were very liberal and the sums outstanding at the close of the year amounted to no less than £1,650,814. The number of coercive processes continued to decrease, largely owing to reforms in collection.

Punjab.—The fixed land revenue demand in 1914–15 was £1,446,963, of which 98·8 per cent. was collected. "Fluctuating" land revenue, the demand for which varies with the crop, amounted to about £787,000, and the collection was easy. There was a decrease in receipts from sales of Government estates, owing to decreased sales of proprietary rights to Lower Chenab Canal colonists. The number of coercive processes against lambardars showed a slight increase.

North-West Frontier Province.—In 1914–15 the fixed land revenue demand rose from £123,994 to £124,037, of which 98 per cent. was collected. Advances to agriculturists increased to £14,082. The system of fluctuating assessment continues to work well in Dera Ismail Khan.

Central Provinces and Berar.—In the Central Provinces in 1913–14 the current land revenue demand was £662,907, an increase of £20,064 over 1912–13, due mainly to new settlements; in Berar it was £608,105. The number of coercive processes in the Central Provinces decreased considerably.

Burma.—The land revenue demand rose to £1,943,372, as against £1,930,022 in 1913–14, the rise being due to revisions of assessments. Remissions amounted to £52,300. Coercive processes showed a large increase under practically all heads. Besides land revenue proper, several minor heads are included under land revenue—the capitation tax levied in Lower Burma (amounting in 1914–15 to £385,421), *Thathameda* or household tax in Upper Burma (amounting to £265,410), fishery revenue (£239,247), and miscellaneous (£243,913). The numbers of persons assessed to capitation tax and of households assessed to *Thathameda* were 1,401,361 and 862,951 respectively. Of the miscellaneous revenue £201,182 was derived from royalties on petroleum, rubies, jade, and amber.

Madras.—The total current demand in 1913–14, excluding cesses, water-rates, &c., was £4,493,355, of which £332,676 was from permanently settled estates, and the greater part of the rest from ryotwari land. Current collections amounted to 98·8 per cent. of current demands. The number of demand notices, which had been steadily decreasing, fell still further to 1,161,568. The number of sales was small.

Bombay and Sind.—The aggregate demand in 1913–14 was to £2,968,845, and collections realised about 99 per cent. of the demand. The arrears were trifling.

CHAPTER V.—REVENUE FROM TAXATION AND OPIUM.

SALT.	PROVINCIAL RATES.	INCOME TAX.	REGISTRATION.
EXCISE.	STAMPS.	CUSTOMS.	OPIUM.

(*For further details see Statistical Abstract for British India, Tables* 43, 45 *to* 47, 50 *to* 58, *and* 61 *to* 64.)

Of the eight heads shown above, seven comprise the tax revenue, and furnish about two-fifths of the total net revenue of the Indian Government.

Salt.

General.—The salt revenue is raised by a duty on all salt imported into, or manufactured in, India. The general rate of duty has been Re. 1 per maund since 1907, but locally-produced salt in Burma pays only 12 annas per maund. Exemption from duty is granted under certain conditions for salt used in manufacturing processes. The gross revenue in 1914–15 amounted to £3,910,790, as against £3,445,305 in 1913–14. Of this nearly 28 per cent. was derived from imported salt. The charges amounted to £360,517, exclusive of £251,526 paid under treaties as compensation, principally to Native chiefs who have assigned their salt sources to the Government of India.

The duty is levied on salt at the place of manufacture, or at the port of importation. Some of the salt sources belong to, or are worked under the direct control of, the various local governments; others are owned or leased by private individuals. The salt supply of India is not, therefore, a Government monopoly, and the importation of salt is unrestricted. Manufacture is not allowed where the circumstances are such as to render proper collection of the duty impracticable, as, for instance, on the coast of Bengal.

Salt affairs in Upper India are controlled by the Northern India Salt Department, which is under the direct administration of the Government of India. The maritime local Governments have their own salt departments. Bihar is under the Northern India Salt Department, but Orissa has its own.

Northern India.—The most important salt sources under the control of the Northern India Salt Department are the Sambhar Lake and the Mayo mine. The gross revenue of the Department in 1914–15 was £975,095, or 20 per cent. more than in 1913–14, while the total charges amounted to £87,927. The increased revenue was due to abnormal purchases in the belief that the duty would be raised in 1915–16. The total quantity issued by the Department for consumption on payment of duty was 11,351,149 maunds, as compared with 10,333,719 maunds in 1913–14.

The average retail prices were higher in 1914–15 in Bihar, the N.W. Frontier Province, Punjab, Central Provinces and Berar, and lower in the United Provinces, Rajputana and Central India. The Department issued 47,695 licences for the manufacture of saltpetre and other saline substances. The refineries produced 516,685 maunds of refined saltpetre. The number of persons arrested for offences against the salt law was 347, of whom 159 were released; 173 persons were convicted.

Bengal.—The salt consumed in Bengal is imported from abroad or from other parts of India. The average wholesale price of salt, including duty, at the chief marts of Bengal was higher than in 1913–14, the cost of imported salt having risen. The net amount of salt consumed in the province rose to 7,804,469 maunds. The number of persons convicted of offences against the salt law was 10.

Orissa.—There is no direct import of foreign salt into Orissa. The total consumption of salt imported from Calcutta and Madras was 1,070,167 maunds, as against 1,345,163 in 1913–14. The decrease is owing chiefly to the shorter outturn in Madras and to the increased price of foreign salt. The average wholesale price was Rs. 2.6.0 per maund. There were convictions for offences in 14 cases.

Madras.—Of the 65 factories worked during 1914–15, 45 were under private and 20 under Government management as in 1913–14. The quantity manufactured was 8,135,639 maunds, as against an annual average outturn of 11,005,328 maunds for the previous five years, the decrease being due to heavy rains and to the severe cyclones in the Waltair sub-division which retarded manufacture. The duty-paid salt imported by sea from Bombay increased from 1,284,770 to 1,400,307 maunds. Issues for home consumption rose from 11,860,895 maunds to 12,338,151; wholesale prices increased.

(Salt.)

Bombay.—The salt supply of Bombay comes from the Pritchard salt brine works, owned by the Government (Baragra salt), from sea-salt works on the coast, and from abroad, chiefly from Goa. The sea-salt works, excepting one, at Dharasna, worked by the Government, are owned by, or leased to, private individuals. The bulk of the Baragra salt and large amounts of sea salt are exported to other parts of India. The conditions in 1914–15 were favourable. The total issues of salt rose from 12,564,009 to 13,244,668 maunds, of which 3,700,033 maunds were retained for local consumption. The consumption per head was 13·7 lbs., as against 13·3. The average price was somewhat higher. The number of offences fell from 143 to 131.

Sind.—The Sind salt supply is derived chiefly from the sea-salt works at Maurypur, from salt deposits at Saran and Dilyar, and from importation. The quantity of salt sold rose in 1914–15 from 420,201 maunds to 422,118 maunds.

Burma.—One rupee per maund is levied on salt imported into Burma. Duty at 12 annas instead of 10 annas per maund has been levied since 1st January 1914 on the actual output of locally manufactured salt in the seven districts where any large quantity is produced. The total estimated consumption of the province amounted to 2,453,791 maunds in 1914, as against 2,506,243 maunds in 1913. The estimated local output fell to 585,874 maunds, as against 785,293 maunds in 1913. The decline is ascribed to the increase of duty. Imports rose from 1,808,036 maunds to 2,358,468 maunds, or 30 per cent. The average retail price was higher owing to the increased price of foreign salt. The convictions for illicit manufacture numbered 53.

Excise.

Excise revenue is derived from the manufacture and sale of intoxicating liquors, opium, and other drugs, principally hemp.

The whole question of excise administration as regards alcohol was reviewed in 1905 by a committee, whose recommendations included advances in taxation in many cases, the further concentration of distillation, the extended adoption of the contract distillery system, and improvements in the preventive and other establishments employed. Action to effect these improvements has been taken in all provinces, and, when necessary, legislation has been carried out to enforce the Committee's recommendations. The subject has recently been reviewed at length by the Government of India and Local Governments, and papers on the subject were published in 1914.*

In a few remote districts the old "out-still" system of distillation continues under licence. Otherwise the whole of India is gradually being brought under the contract system. By this system the dangers of unrestricted competition for the supply of liquor and the attendant difficulties of proper supervision are avoided, while the largest possible proportion of the monopoly profits, on both wholesale and retail supply, are secured to Government.

The number of retail spirit shops is being steadily reduced throughout India. Objections are invited from the public before any new retail shop is licensed, and the location of all the shops comes periodically under review by advisory committees in all the towns of any size.

Fermented liquors are taxed mainly by means of licenses for manufacture and retail trade. In Madras and Bombay a fixed tax per tree is levied on trees tapped for toddy. Spirits and beer manufactured in India on European lines are taxed at the same rate as the customs duties on similar liquors imported from abroad.

The excise revenue on opium is chiefly derived from duty and vend-fees. Opium smoking is subject to stringent legal restrictions. Hemp cultivation is restricted and controlled, and a duty and vend-fees are levied. *Charas* is now prohibited in some districts, and elsewhere is subject to a high duty.

The habit of cocaine-taking has of recent years become common among certain classes in the larger towns of Burma, Bengal, Bombay, the Punjab, and the United Provinces. Any person found in possession of the smallest quantity without a licence is now liable to punishment, and large quantities of smuggled cocaine have been seized by the preventive officers. A conference to consider measures for the suppression of cocaine smuggling was held at Delhi in November 1914.

* For the Report of the Committee of 1905, and for the orders passed by the Government of India thereon, *see* Parliamentary Papers Cd. 3327 and 3816, and House of Commons Papers 142 and 209 of 1907. For the later papers, *see* Cd. 7524 and 7604 of 1914.

(Excise.)

The following table shows the Excise Revenue for 1913–14 and 1914–15 under the different heads, as given in the Finance and Revenue Accounts :—

Year.	Licence and Distillery Fees and Duties for the Sale of Drugs and Liquors.					Other Duties, &c. on Indian Consumption of		Fines, Confiscations, Miscellaneous.	Total Revenue.	Charges.	Net Revenue
	Foreign Liquors, &c.	Country Spirits.	Toddy and Pachwai.	Opium and its Preparations.	Other Drugs.	Opium, &c.	Ganja.				
	£	£	£	£	£	£	£	£	£	£	£
1913–14 -	335,063	4,820,213	1,507,994	377,086	546,630	914,401	360,895	32,018	8,894,300	437,529	8,456,771
1914–15 -	358,141	4,660,291	1,566,897	414,245	576,963	887,293	353,126	39,925	8,856,881	459,685	8,397,196

A sum of £811,247 was yielded by customs duties on exciseable liquors imported into India during 1914–15.

The growth of the excise revenue in recent years is due largely to higher rates of duty and stricter excise control, and does not indicate a corresponding increase of consumption, although a moderate increase has occurred through the expansion of population and the greater prosperity of the country as a whole.

The number of retail shops and the excise receipts, as compared with the population, are shown in the following table, province by province :—

PROVINCE.	Population of Excise Area.	Number of Persons per Retail Shop licensed in 1914–15 for the Sale of				Net Excise Receipts per 10,000 of Population in Rupees.
		Country Spirit.	Country Fermented Liquor.	Opium and its Preparations.	Narcotic or Intoxicating Drugs, other than Opium.	
Bengal - - - - - -	45,329,247	36,763	13,939	52,770	22,710	3,225
Bihar and Orissa - - -	34,490,084	17,202	4,879	62,032	20,877	3,184
Assam - - - - -	6,622,431	34,854	213,627	17,898	26,175	7,955
United Provinces - - -	47,182,044	10,155	16,147	44,379	13,644	2,533
Punjab - - - - -	19,548,126	26,239	888,851	22,188	37,163	3,417
North-West Frontier Province -	2,251,292	70,353	—	31,708	30,423	1,512
Burma - - - - -	10,534,808	74,189	10,014	84,958	—	7,326
Central Provinces and Berar -	13,916,308	3,856	27,075	13,116	12,605	7,518
Madras - - - - -	41,430,193	5,070	3,020	55,987	77,151	8,398
Bombay - - - - -	16,113,051	8,301	14,823	21,201	28,620	11,636
Sind - - - - - -	3,513,435	15,546	878,358	16,495	10,125	6,584

The principal features of the excise administration in the various provinces during 1914–15 were as follows :—

Bengal.—In 1914 the Excise Department was reorganised and amalgamated with the Salt Department. There was a great decrease in the consumption of exciseable articles in 1914–15, due partly to an increased duty on country spirits and a curtailment of hours for spirit and drug shops, but mainly to high food prices and dearth of employment consequent on the war. The duty on *ganja* was raised, and further restrictions on opium were imposed. The total excise revenue of the year, £1,023,994, showed a slight decline. A large decrease in country spirit receipts was set off by larger receipts under opium (due to higher licence fees) and foreign liquor. The settlements for country spirit showed a decided increase in Calcutta. The revenue from country spirit was £444,461, from hemp drugs, £233,161, and from opium, £194,822.

The number of arrests in Calcutta for illicit traffic in cocaine rose from 1,051 to 1,219. Opium smuggling is still not uncommon.

Bihar and Orissa.—Various measures tending to restrict the sale of country spirit, *charas* and opium were introduced. The total excise revenue for 1914–15 was £772,896, a slight increase on 1913–14. The revenue from country spirit was £389,868, from hemp drugs, £176,203, and from opium, £98,955. Advisory Committees were formed in all municipal towns, and also in rural areas in the Chota Nagpur Division. There has been a steady reduction in the number of excise shops. The illicit use of cocaine shows no decline, in spite of measures taken to prevent smuggling.

Assam.—The duties on country spirit, *ganja*, and opium were enhanced in 1914–15, and the hours of sale were curtailed for all excise and opium shops. The number of

(Excise.)

out-stills was further reduced. The revenue increased slightly to £360,375, including £203,567 for opium and £100,604 for country spirit.

United Provinces.—Bad harvests and trade depression due to the war caused a decline in consumption, especially of country spirit, in towns and rural districts alike. The revenue fell by 5½ per cent. to £828,559, including £525,880 for country spirit, £83,220 for opium, and £170,545 for other drugs. The rates of still-head duty are being steadily increased. The number of shops was again reduced. *Ganja* still tends to displace *charas*. The smuggling of opium and cocaine continues.

Punjab.—In 1914–15 the retail prices of exciseable articles generally were higher and consumption declined, mainly owing to the war. There was a trifling increase in revenue to £461,406, of which £283,570 was from country spirit and £90,488 from opium. A campaign against illicit distillation and smuggling was very successful. The number of liquor shops was further reduced. It is proposed to consult local authorities on the grant of liquor licences. Cocaine smuggling is rife, but active preventive measures have been undertaken. Several opium smugglers were arrested.

North-West Frontier Province.—The revenue, £23,618, was the highest yet realised. The cocaine habit has grown in Peshawur and illicit traffic in the drug prevails.

Burma.—The control of the sale of opium in shops is now believed to be efficient, but illicit importation of opium from India is found hard to check. The total excise revenue in 1914–15 was £615,958, including £246,176 for opium and £358,545 for liquors. The revenue from liquors was higher by £49,000, and, but for the war, would have been higher still. The cocaine habit received a check.

Central Provinces and Berar.—The trade depression resulting from the outbreak of war seriously affected the excise revenue, which fell by 5 per cent. to £770,654, including £521,752 for country spirit and £174,644 for opium. Scarcity in some tracts and the high prices of liquor contributed to the decline. While receipts from spirit fell by 7 per cent. consumption decreased by 13 per cent. The contract distillery system was further extended. The consumption of opium decreased in Berar. Municipal committees are consulted as to the location of liquor shops. A new Excise Act was passed in February 1915.

Madras.—The excise revenue amounted to £2,319,435. Receipts from toddy increased, while those from country spirit decreased, the former owing to increased rentals, the latter to a fall in consumption. Receipts from opium, *ganja*, &c. were larger. The duty on *ganja* was enhanced. The number of liquor shops was reduced. War has checked the normal growth of the revenue.

Bombay.—There was a decline in the revenue to £1,476,409, which included £1,230,585 for country spirit and toddy, £129,435 for opium and £90,623 for other drugs. Further restrictions were placed on the sale of liquors and the duties on *ganja* and *charas* were raised. The separate shop system for the vend of opium has now been extended to the whole Presidency. There were many more prosecutions for the illicit sale of cocaine.

Provincial Rates.

Since 1904–5 many cesses levied under this head have been abolished, and the revenue amounted in 1914–15 to only £38,814, as against £180,210 in 1913–14.

Stamps.

The stamp revenue is derived from two great classes of stamps, judicial or court fee and non-judicial stamps. The revenue from the former increases with the growth of litigation, and from the latter with the development of trade and industry. In 1914–15 the revenue declined under both heads. The gross stamp receipts for 1913–14 and 1914–15 were £5,318,293 and £5,082,043 respectively. In 1914–15 the sale of court fee stamps realised £3,499,063 and that of commercial and other stamps £1,541,342. Over one-fourth of the revenue is derived from Bengal.

Income Tax.

The gross revenue from income tax in 1914–15 was £2,036,733, as compared with £1,950,250 in 1913–14. Ordinary collections produced £1,629,161 and Government salaries and pensions, £324,345. The proportion of revenue derived from the different sources varies but little. The number of persons assessed to income tax is only a small fraction of the population.

Customs.

General import duties were levied in 1914–15 at the rate of 5 per cent. *ad valorem*. Special import duties were levied on malt liquors, wines, spirits, arms and ammunition, salt and salted fish, opium, tobacco, and silver. Tobacco was dutiable at various rates, fixed in 1911. Salt was dutiable at Re. 1 per maund, and silver at 4*d*. per ounce. Petroleum paid 1½ annas per gallon, and iron and steel generally 1 per cent. *ad valorem*. The chief articles on the free list were railway materials, machinery which is worked by power other than manual or animal labour, grain and pulse, living animals, coal, jute, raw cotton, raw wool, books, gold and unset precious stones. In February 1896 all cotton yarns and thread, whether imported or manufactured in India, were freed from duty, while a uniform duty of 3½ per cent. *ad valorem* was imposed on all woven cotton goods imported from abroad or manufactured in India in power mills, the products of handlooms being exempted. A duty was levied on exported rice and rice-flour at the rate of 3 annas per maund of 82⅔ lbs. of unhusked rice (about 4*d*. per cwt.). Jute exports from Calcutta and Chittagong were subject to a small duty for the benefit of the town, and there was a trifling export duty on tea, the proceeds being handed over to a committee representing the tea-trade. The marginal table shows the gross customs receipts (excluding salt) in 1913-14 and 1914–15. The receipts from import duties in 1914-15 showed a considerable decrease, owing to the effects of the war. The large decline in the export duty on rice was partly due to the diversion from Burma to India of rice available for export abroad.

	1913–14.	1914–15.
Sea Customs, import duty :	£	£
Arms, ammunition, &c.	13,646	35,633
Liquors	882,770	811,247
Petroleum	468,125	571,489
Cotton manufactures	1,407,608	1,023,832
Silver bullion and coin	657,227	1,030,068
Other metals	482,962	328,167
Sugar	607,755	293,144
Tobacco	195,302	178,556
Other articles	1,419,307	1,106,582
Export duty on rice	839,131	553,192
Miscellaneous	35,960	28,559
TOTAL Sea Customs	7,009,793	5,960,469
Land Customs	37,270	37,812
Excise duty on cotton manufactures	357,512	329,395
Miscellaneous	20,643	19,524
TOTAL CUSTOMS REVENUE	7,425,218	6,347,200

Registration.

General.—Offices exist in every district for the registration of documents, and for keeping copies thereof. *Ad valorem* fees are charged for registration, and a small fixed fee for searching the records. Documents relating to the sale, mortgage or lease of immovable property, compulsorily registrable, comprise the great majority of registrations. The gross registration receipts in 1914–15 were £485,295, as against £518,962 in 1913–14, and the cost of the registration offices was £257,980.

Opium.

The opium revenue is raised by a monopoly of the production of the drug in certain districts in the United Provinces, where opium is grown for use in India and for export. The cultivator of opium (known as Bengal opium) in these monopoly districts must hold a licence, and is granted advances to enable him to prepare the land for the crop. He is required to deliver the whole of his outturn of crude opium at a fixed price to Government agents, by whom it is despatched to the Government factory at Ghazipur. The supply of prepared opium required for consumption in India, "excise opium," is made over to the Excise Department, and Rs. 8½ per seer is credited to opium revenue for the amount thus consumed. The chests of "provision" opium, for export, are sold at monthly auctions in Calcutta, and the proceeds, less the cost of production, constitute the revenue from Bengal "provision" opium. The export of Bengal opium to China ceased early in 1913.

The opium revenue and expenditure in 1914–15 were £1,572,218 and £654,089 respectively as compared with £1,624,878 and £1,012,440 in 1913–14. The net revenue was £918,129, as against £612,438 in 1913–14. These figures exclude excise duties on opium consumed in India (shown under Excise). The number of chests sold by auction for export in 1914–15 was 10,648, at an average price of Rs. 1,568 per chest, while 350 chests were sold direct to the Hong Kong Government and 600 to the Straits Settlement Government.

(Season and Crop Reports.)

CHAPTER VI.—AGRICULTURE.

Season and Crop Reports.

Bengal.—There was a good autumn crop, but a poor winter rice crop, and an inferior spring crop. The total cropped area was 29½ million acres.

Bihar and Orissa.—The season was not, on the whole, a favourable one for autumn crops, and the spring crops were much below normal.

Assam.—Rainfall was, generally, much below the average, prejudicially affecting the rice, oil-seeds, and jute crops. The autumn and winter rice crops were short.

United Provinces.—The rainfall was ample but ill-distributed. The season, however, as a whole was by no means unfavourable. Early rice gave a yield well up to normal, but late rice was unsatisfactory. Cotton and sugar-cane were below the average.

Punjab.—Taken as a whole the monsoon rainfall of 1914 was favourably distributed. The matured area exceeded that of 1913. There were largely increased sowings for the spring harvest in the unirrigated areas with successful results. The price of food-grains rose.

Punjab Canal Colonies.—In the three older colonies (Lower Chenab, Lower Jhelum, and Chunian) conditions now approximate more or less to those in ordinary districts, and the special report on them is to be discontinued. Of a total allottable area in these three colonies of 2,580,000 acres, all but 180,000 acres, representing mostly reserved grazing grounds, have been allotted.

In the new colonies of the triple canal project, cultivation rose from 35,000 to 138,000 acres in the Lower Bari Doab Colony, and over 41,000 acres were allotted in the Upper Chenab Colony.

North-West Frontier Province.—The total cropped area was considerably above normal. The yield of wheat, the principal crop, was 24 per cent., and that of barley 114 per cent. above normal.

Central Provinces and Berar.—The area sown with autumn and spring crops was above normal. The total crop is estimated at three-fourths normal.

Burma.—On the whole the season was unfavourable. The cropped area again increased, but drought and floods caused failures of the harvests. The outturn of rice was considerably below normal.

Madras.—The season, owing to the ill-distributed rainfall, was not altogether favourable. The cultivated area was above the average, but the outturn of crops was generally below normal.

Bombay.—The year was one of abundant rainfall, and there was a decided increase in the cropped area. The acreage under cotton increased. The outturn of crops was generally satisfactory.

Agricultural Produce.

(*For further details see Statistical Abstract for British India, Tables* 117 *and* 121.)

The chief crops are rice, wheat, barley, various kinds of millets, pulses, maize, oilseeds, sugar, tea, cotton, and jute. Particulars for 1914–15 regarding some of the more important staples are given below. The figures are derived from returns of crop forecasts, and they include Native States as well as British India.

Rice.—Nearly one-third of the cropped area in British India is under rice. Bengal, Bihar and Orissa, Burma and Madras are the principal producers. Burma is by far the largest exporter. The total area under rice was 76,181,000 acres, and the estimated yield 27,964,000 tons. The outturn was adversely affected by the deficient rainfall in the important areas. The rice exports in 1914–15 showed a falling off.

Wheat.—Wheat occupies usually about 10 per cent. of the whole cultivated area. More than half of the total wheat acreage is in the Punjab and the United Provinces, and rather more than half in each of these provinces is irrigated. The year was on the whole favourable in the important wheat-growing provinces. The total yield, 10,269,000 tons, was a record one. The area sown was 32,230,000 acres, an increase of 3,755,000 acres. The exports of wheat and wheat-flour are subject to great fluctuations. In 1914–15 the exports of wheat were 706,400 tons, and of flour 54,000 tons, as against 1,202,200 tons and 79,400 tons respectively in 1913–14.

Sugar.—The area under sugar was reported to have decreased to 2,315,000 acres in 1914–15, and the yield to have increased to 2,367,000 tons, which is above the average for the five previous years. The decrease in acreage is attributed to deficient moisture at sowing time and scarcity of seed-cane owing to drought. To the sugar-cane cultivated in British India must be added the extensive crops grown in Native States. Further, there is a large production of palm sugar, chiefly in Bengal, Madras, and Burma. A considerable quantity both of cane in the raw state and of the unrefined sugar or *gur* is consumed as food, but the increasing demand for refined sugar, which is supplied chiefly from Java and Mauritius, is prejudicially affecting the *gur* industry. The question of improving the methods of cultivation and the manufacture of *gur* and refined sugar is receiving careful attention.

Tea.—The area reported under tea in India in 1914 was 622,600 acres, including 376,000 acres in Assam and 159,100 acres in Bengal. The total production was estimated at 312,976,000 lbs. During 1914 the tea gardens employed 587,898 persons permanently and 88,602 temporarily. The capital invested by joint stock companies in tea production is returned at £20,155,000, and, in addition, a large but unknown quantity of private capital is invested. The exports of Indian tea by sea in 1914–15 were 300·8 million pounds of which 237·3 went to the United Kingdom, 19·6 to Russia, and 11·0 each to Canada and Australasia. In 1914 of the tea retained for home consumption in the United Kingdom only 4 per cent. came from China and 58 per cent. came from India.

Jute.—India has a virtual monopoly of the production of jute, which is grown almost exclusively in Bengal, Bihar, and Assam. The jute area in 1915 was 2,377,000 acres, and the outturn 7,429,000 bales as compared with 3,359,000 acres and 10,531,000 bales in 1914. The decreases in area and outturn were due partly to flooding. The total Indian mill consumption of raw jute in 1914–15 was estimated at 4,668,000 bales as against 4,374,000 bales in 1913–14. Exports fell from 4,310,000 to 3,046,000 bales.

Cotton.—This is one of the most important crops for the grower, the Indian manufacturer and the exporter. The estimated area and yield for 1914–15 were 24,632,000 acres and 5,232,000 bales as compared with 25,020,000 acres and 5,065,000 bales in 1913–14. About half the total product is from Bombay and the Central Provinces and Berar. The exports of raw cotton from India in 1914–15 were 10,349,000 cwt., valued at £22,326,000, as compared with 10,626,000 cwt., valued at £27,362,000 in 1913–14. The bulk of the Indian cotton exported normally goes to Japan and Western Europe.

Oil Seeds.—The area under, and the yield of, the main oil-seed crops, linseed, rape, mustard, sesamum, &c. showed an increase, but exports of seeds were only 19,078,000 cwt. in 1914–15 as compared with 31,652,000 cwt. in 1913–14, a decline of 40 per cent.

Co-operative Societies.

(*For further details see Statistical Abstract for British India, Table* 115.)

These societies were started by Government to enable the poorer classes, and particularly the cultivators, to borrow money at reasonable rates. The Co-operative Credit Societies Act of 1904, which conferred certain privileges on these societies, was amended by the Co-operative Societies Act of 1912. This Act covers all co-operative societies and recognises central unions which, since 1904, had become important. The Act leaves wide discretion to the local Government, and the types of society favoured in the different provinces vary considerably.

The provincial registrars of co-operative societies are officials, and official aid is given in various ways, though loans by Government, never very extensive, form a steadily decreasing proportion of the working capital. Aid is also forthcoming with increasing readiness from non-official local gentlemen. The accounts of every society must be annually audited by a person approved by the registrar, who also has a certain discretion as to granting applications for registration.

The two main difficulties of village societies, proper supervision and the provision of funds, have been met by the "central societies," of which the type most generally approved is the "Central Banking Union" that prevails in Bengal and is being largely adopted elsewhere. These unions are federations of village societies; they maintain a staff of trained inspectors and also act as banks for their affiliated societies,

(Co-operative Societies.)

forming a medium between the latter and the open money market. It is through this access to the money market that the village societies obtain their chief advantage over the local money-lender. In Bombay there is a central co-operative bank for the entire province with a Government guarantee. Others, without such guarantee, are being formed in other provinces.

The village societies are almost all on the unlimited liability basis. They may not distribute their profits among members save with the sanction of the local Government, but in some provinces (*e.g.*, Burma, the United Provinces, and the Punjab) it has been found that societies formed on a share-basis answer best, though dividends may not be distributed until 10 years after the first share-payment. In other provinces the strict Raiffeissen rule is observed, and profits on working (beyond what is required for the reserve) go to the reduction of interest on loans to members.

The rates of interest charged by village societies vary from 9½ per cent. in Bombay to 15 per cent. in Burma and Bengal, and the average rate is far below that charged by money-lenders, who have indeed been forced to lower their rates. The loans of the societies to their members probably represent a saving to the agriculturist of more than 10 per cent. in interest charges. The interest paid by the societies on deposits is usually 6 to 9 per cent.

Of the purposes for which loans are required the most important are the payment of old debts and the purchase of plough cattle. Surprisingly little is drawn for uneconomic purposes such as expenses of ceremonial.

The educative effect of the movement in the villages is considerable. The societies are in close touch with the Agricultural Departments, and are much utilised by the latter for assisting demonstrations of new staples, the supply of implements, distribution of seed, &c.

The urban credit societies, chiefly limited liability concerns formed among salary earners, are of increasing importance. There are also urban and rural societies for objects other than credit, *e.g.*, for purchase of seed or manure, or, in the case of weavers and other artizans, of raw material for their trade, and for marketing the goods of members. But their development is comparatively slow. In Burma cattle insurance societies have proved a great success, and four have been started in the United Provinces.

A Government Committee on Co-operation in India was at work during the year.

The total number of co-operative societies in British India in 1914–15 was 16,295 (of which 16,016 were agricultural), with a membership of 761,935 and a total working capital of £5,718,380.

Of the total capital of the societies, £1,643,131 represents share capital and deposits of members, £3,621,832 loans and deposits of non-members and other societies, £335,131 reserve, and £76,543 loans from Government.

The following is a brief account of the working of the movement in the principal provinces :—

Bengal.—In 1914–15 the number of societies increased from 1,661 to 1,992 with a membership of 107,118 and a working capital of £733,440. There are now 38 central banks with a working capital of £272,600 and 8 unions. The membership of agricultural societies rose from 71,282 to 85,717, and their working capital increased to £353,000. Of the 1,862 agricultural societies 1,582 are affiliated to central banks.

In spite of the difficulties of the year due to the war, the fall in jute prices, &c., the movement stood the test and made satisfactory progress. Special attention was given to defects in working. A scheme to establish a Provincial Bank for financing central banks and maintaining the cash reserve is under discussion.

Bihar and Orissa.—The membership of the 1,087 societies was 54,647. The war affected the societies very little, and the year was one of steady progress. But in order to concentrate attention on the improvement of existing societies registrations of new societies were suspended during 1915. The Provincial Bank established in 1913–14 has proved very successful in controlling and financing the central societies, which have increased from 11 to 18. Of the agricultural societies 87 per cent. are affiliated to central societies.

Assam.—In spite of a cautious policy necessitated by the inadequate supervising staff, there was an increase in societies from 249 to 301, of which 271 were agricultural societies with unlimited liability. The five Banking Unions did good work. The non-agricultural societies have progressed.

United Provinces.—Owing to the war and bad seasons the year was not one of expansion, but existing societies were strengthened. The financial position of the central societies improved, though the amount of over-due debts was too large. The agricultural societies were in a thoroughly good position, except for arrears. The number of societies at the end of 1914–15 was 2,962 with 116,525 members and a working capital of £783,276.

Punjab.—The difficulties caused by bank failures in 1913–14 were intensified by the financial stringency arising from the war and unfavourable harvests. Consequently there was little expansion, and attention was devoted to the improvement of existing societies. It is proposed to amalgamate the Central Banks and Banking Unions. The number of societies at the close of the year was 3,337 with 159,004 members and a working capital of £1,276,710.

Central Provinces and Berar.—The year was one of unusual difficulty, owing to the effects of the banking crisis of 1913–14, bad seasons, the war, and the need for restricting too rapid expansion. Weavers' and dyers' societies were hard hit. Nevertheless the number of members rose from 40,415 to 44,084, and the working capital from £434,000 to £484,000. A larger supervising staff is needed not only for audit, but to teach the principles of co-operation. The Central Banks made progress, and the Provincial Bank almost doubled its deposits and increased its reserve fund.

Burma.—Co-operation is established on sound lines, and the systems of cattle insurance and guaranteeing unions are specially excellent. The formation of a Central Cattle Reinsurance Society with Government aid has been sanctioned. Although the year was devoted mainly to the consolidation of existing societies, the number of agricultural societies rose from 1,086 to 1,252, of which 1,117 are comprised in 112 guaranteeing unions. Co-operative sale and urban credit societies were less successful.

Madras.—The movement showed continued expansion, and at the end of 1914–15 there were 1,600 societies with 118,726 members. Out of 267 new societies, 191 were agricultural societies with unlimited liability. The total working capital increased to £947,300. The percentage of loans for unproductive purposes was smaller. There were 10 central banks and 20 central unions comprising about 400 societies for the purpose of supervision. Urban banks rose from 50 to 103.

Bombay.—The report indicates steady progress. The number of societies increased by 119 to 817, the membership rose from 66,700 to 84,600, and the working capital amounted to £541,000 as against £439,000 in 1913–14. There were 5 central unions, including the Bombay Central Co-operative Bank. In Sind there were 19 societies with 1,484 members.

(Forests.)

CHAPTER VII.—FORESTS.

(*For further details see Statistical Abstract of British India, Tables* 45 *to* 47, 59, 60, *and* 123.)

General.—The State forests are classified as "reserved," "protected," or "unclassed." The reserved (including leased) forests, in which the control of the Forest Department is most complete, cover an area of about 96,300 square miles. Outside the reserves there are about 141,000 square miles of unclassed forests, including large tracts of unoccupied waste, and 8,400 square miles of protected forests. Some part of these will eventually be brought within the "reserve" area, especially in Assam and Burma, in which the forest area represents 46 and 63 per cent. respectively of the total area of the province. Forest revenue is raised by royalties on, or by the sale of, timber or other produce and by the issue at specified fees of permits to graze cattle, or to extract for sale timber, firewood, charcoal, bamboos, canes, and minor forest produce. The gross revenue derived from forests in 1914–15 was £1,980,652, including £351,309 and £1,497,377 received for timber and other produce removed from the forests by Government agency and by consumers (or purchasers) respectively. The charges amounted to £1,217,808, leaving a net revenue of £762,844.

The following paragraphs treat of forest administration in each Province for the year ending 30th June 1915.

Bengal.—The yield of timber was 6·8 million, and of fuel 14·8 million cubic feet. The net receipts, £35,180, were considerably smaller owing to diminished sales and lower prices.

Bihar and Orissa.—The year was unfavourable for fire protection, many fires being ascribed to intentional incendiarism. The outturn of timber was 1·5 million cubic feet and of fuel 16·7 million cubic feet. The net revenue was £11,345.

Assam.—Inquiries were made into the *Sal* forests, which constitute the most valuable forest asset of Assam. The outturn of timber was 3·2 million cubic feet. The royalty on tea box timber, temporarily remitted, was again levied from 1st January 1915. The tax on lac was abolished. Pines have been planted with the view of establishing a resin industry.

United Provinces.—The settlement of the Kumaon Circle continued. The production of timber was 8·7 million and of fuel 7·7 million cubic feet. The resin industry has shown steady expansion in the Kumaon hills. A large quantity of sleepers was supplied to railway companies. The surplus revenue decreased to £45,700.

Punjab.—Areas under the Forest Department are being disforested for colonisation. Irrigated plantations are in process of formation in the irrigation colonies. A new resin factory has been erected with an up-to-date plant capable of dealing with 40,000 maunds of crude resin annually. The outturn of timber was 5·9 million cubic feet and of fuel 17·2 million cubic feet. The net revenue for the year was about £38,000.

North-West Frontier Province.—The total outturn of timber was 3·2 million cubic feet, as against 3·4 million in 1913–14. The financial surplus fell to £6,893.

Central Provinces and Berar.—The outturn of timber was 8·0 million cubic feet, and of fuel 30·5 million cubic feet. The financial surplus showed a satisfactory increase to £95,600. Nearly half of the forest revenue is derived from grazing fees and fodder grass. Revised grazing rates have been introduced.

Burma.—New reserves, aggregating 907 square miles, were notified. Unclassed forests covered 114,127 square miles. About 207,000 tons of teak were extracted (of which 178,000 tons were extracted by private agencies), as against 176,000 tons in 1913–14. The outturn of other timber was greatly diminished owing to the war.

Madras.—Orders were given for the starting of 30 additional panchayats with jurisdiction over 24,000 acres of reserves. It is hoped that the policy of relaxing control over small scattered reserves and entrusting grazing areas to panchayats will lessen the number of forest offences. The outturn of timber was 4·9 million cubic feet, and of fuel 22·0 million cubic feet. The surplus revenue amounted to £72,000.

Bombay.—Working plans are still required for 1,119 square miles. The number of prosecutions for forest offences declined. The year was unfavourable for fire protection. The total outturn of timber was 5·9 million cubic feet and of fuel 39·0 million cubic feet. The financial result of the year's working showed a surplus of £164,368 as against £167,705 in 1913–14.

Coorg.—The total outturn of timber (including sandalwood) was 528,280 cubic feet as against 394,545 cubic feet in 1913–14. Depression in the sandalwood trade caused a large falling off in receipts.

CHAPTER VIII.—MINERAL PRODUCTION AND MINING.

For further details see Statistical Abstract for British India, Table 218; *also quinquennial review of Mineral Production for the years* 1909 *to* 1913 *and report for* 1914 *in Records of Geological Survey, Vols.* XLV. *and* XLVI., 1915.)

Mineral Production.

General.—The total output of minerals in 1914 showed a decrease, the estimated value being £9,941,000 as against £10,175,000 in 1913. The most important minerals are coal and gold, the production of which was valued at £3,907,000 and £2,338,000 respectively, followed by manganese ore, £877,000, petroleum, £959,000, and salt, £483,000.

Coal.—The production in 1914 rose to 16,464,000 tons. The marginal table shows the territorial distribution of the output. Bihar produces about 65 per cent. of the total, the Jherria coal-field (opened in 1893) providing, in 1914, 9,146,653 tons, or over half the total output, and the Raniganj 4,946,295 tons. The price at the pit's mouth in Bengal and Bihar and Orissa was 5*s.* 2*d.* and 4*s.* 3*d.* per ton respectively. The exports of Indian coal, 577,944 tons, were 179,542 tons less than those of 1913. Ceylon and the Straits Settlements are the principal markets. The average number of persons daily employed in coal mines rose from 144,966 to 151,376. Improved mining methods have raised the output per head from 89 tons in 1904 to 109 tons in 1914.

	1913.	1914.
	000 tons.	000 tons.
Bengal - -	4,650	4,425
Bihar and Orissa -	10,228	10,661
Other places -	1,330	1,378
Total -	16,208	16,464

Gold.—The production amounted to 607,388 ounces, compared with 595,761 ounces in 1913. By far the greatest part (562,355 ounces) came from Mysore.

Iron Ore.—The production rose from 371,000 tons in 1913 to 442,000 tons in 1914, mostly derived from Bihar and Orissa. The manufactures amounted to 234,726 tons of pig-iron and 66,603 tons of steel.

Petroleum.—In 1914 production fell by 7 per cent. to about 259 million gallons. A large decline of 25 million gallons from the Yenangyaung field was partially set off by an increase of 10 million gallons from the Myingyan (Singu) field.

Manganese Ore.—The industry suffered from severe depression and prices fell owing to the closure of European markets and restrictions on export. There was a fall of 132,000 tons to 683,000 tons in the quantity produced. The Central Provinces yielded 565,000 tons, followed by Madras with 60,000 tons.

Salt.—The production was 1,203,762 tons, as against 1,299,281 tons in 1913.

Saltpetre.—Nearly 15,500 tons were produced as against 14,462 tons in 1913, chiefly in Bihar, the United Provinces, and the Punjab.

Mica.—India produces more than half the world's supply of mica. The output returns are unreliable, but the amount reported, 40,507 cwt. in 1914, showed a decline of 5,268 cwt. The mines are chiefly situated in Bihar and Madras.

Wolfram.—The wolfram (tungsten) deposits of Burma have been considerably developed, and the district of Tavoy is now the largest producer in the world. The output in 1914 was 2,326 tons (value £178,543) as against 1,688 tons in 1913.

Rubies.—The output of the Burma Ruby Mines Company was 304,872 carats, valued at £43,133, as against 278,706 carats, valued at £55,542 in 1913.

Other Minerals.—These include lead, which was more largely produced, chromite, tin-ore, and monazite, the working of which is being developed in Travancore.

Mining Concessions.

The number of concessions granted in Government lands fell from 495 in 1913 to 363 in 1914 (305 prospecting and 58 mining leases).

Rights in respect of petroleum and of certain metals of importance in the manufacture of armaments may be granted only to British subjects.

In practically all Native States the mineral rights belong to the respective rulers, and concessions are granted for mining and prospecting under rules that involve a certain amount of supervision by the Government of India.

Inspection of Mines.

The Indian Mines Act, 1901, applies to the whole of British India. The number of mines of all kinds coming under the Act in 1914 was 1,387, employing 185,211 persons. There were 152 fatal accidents causing 191 deaths, during the year, a decrease of 20 in the deaths as compared with 1913. There were 44 prosecutions in which 42 persons were convicted.

CHAPTER IX.—MANUFACTURES.

(For further details see Statistical Abstract for British India, Tables 214 to 217.)

Government and Industrial Development.

The movement for promoting home industries, known as the *swadeshi* movement, has, in its legitimate forms, received official support. There are standing orders that stores required by Government shall, as far as practicable, be purchased in India, and preference is given to articles manufactured in India provided that the quality is sufficiently good and the price not unfavourable. Measures have been taken to restore and develop technical trades and industries. Surveys of industrial conditions in almost all the major provinces have been published, besides various monographs on particular industries. Scholarships for the higher commercial and technical training of Indians abroad are offered by the Government and by private associations. In Madras, the United Provinces and Bengal the Directorship of Industries is a separate appointment. In Madras a leather expert has been appointed to superintend a leather-trade school; there is also a dyeing school. In the United Provinces there is a sugar-engineering expert. In Bengal the silk industry has received special attention; the weaving school at Bankura has been made a permanent institution. A scheme has recently been started for the revival of cottage industries in the Central Provinces, especially weaving, tanning, and shoemaking.

Industrial conferences are held, some convened by the Local Governments, and others non-officially, such as the annual Indian Industrial Conference.

Large Industries.

Cotton Mills.—Of the 233 cotton mills at work in British India in 1914-15 Bombay City contained 86 and Ahmedabad 61. The industry is to a large extent in the hands of Indians, and the capital is almost wholly rupee capital. The daily average number of persons employed was 241,000. The figures in the margin are for British India only.

Year.	No.	Paid-up Capital.	Looms.	Spindles.
		000 £		000
1903–4 -	187	10,428	41,997	4,900
1908–9 -	212	12,604	69,791	5,624
1912–13 -	241	13,776	85,676	6,101
1913–14 -	239	13,534	90,268	6,209
1914–15 -	233	13,565	96,869	6,209

The mills of the Bombay Presidency produced nearly 73 per cent. of the total output of yarn in 1914–15. Yarns of counts above 25 are spun chiefly in Bombay and Madras. In 1911–12 trade revived after temporary depression, and the production in the two following years was at a high level. A further depression began at the close of 1913, and several mills stopped in 1914. The outbreak of war increased the difficulties of the trade, especially in regard to dyes.

Owing to the vicissitudes of the spinning business increased attention has been devoted to weaving, the figures showing an almost continuous increase until 1913–14, when partial famine and bank failures affected production. Weaving is concentrated to an even greater degree than spinning in the Bombay mills, which in 1914–15 produced about 86 per cent. of the total output of cloth. There is a decided tendency to increase the output of other and finer fabrics than grey and bleached goods; in Madras 66 per cent. of the output is of these finer fabrics.

The outturn of yarn and cloth in recent years in British India is shown in the table below:—

Year.	Counts Nos. 1 to 25.	Counts above No. 25.	Total Output of Yarn.	Grey Cloth.	Other kinds.	Total Output of Cloth.
Average:	Million Lbs.	Million Lbs.	Million Lbs.	Million Lbs.	Million Lbs.	Million Lbs.
1901–2 to 1905–6 - - -	537·4	39·9	577·3	109·9	25·0	134·9
1906–7 to 1910–11 - -	555·4	53·6	609·0	154·1	40·0	194·1
Year 1911–12 - - - -	531·7	59·2	590·9	193·0	59·1	252·1
„ 1912–13 - - - -	589·1	61·5	650·6	196·1	71·5	267·6
„ 1913–14 - - - -	582·7	61·5	644·2	188·5	67·9	256·4
„ 1914–15 - - - -	557·1	57·9	615·0	198·3	59·9	258·2

Jute Mills.—While the cotton mills are mainly situated in Western India, jute mills are nearly all concentrated in the vicinity of Calcutta, and are mostly in the hands of British firms. The jute industry has enjoyed almost uninterrupted and increasingly rapid progress, the number of looms and spindles having nearly doubled in the last decade. The production of the mills has increased even faster than the number of looms and spindles. The number of persons employed in 1914–15 was 238,000.

Year.	No.	Paid-up Capital.	Looms.	Spindles
		000£		000
1903–4 -	38	4,954	18,400	377
1908–9 -	56	7,413	29,525	607
1912–13 -	61	7,977	34,033	709
1913–14 -	64	8,137	36,050	744
1914–15 -	70	9,295	38,379	796

General.—There were five woollen mills at work at the end of 1914, containing 1,154 looms and 39,028 spindles, and producing goods valued at about £493,000 for the year. The growth of the industry is slow, but steady. There were eight paper mills, producing during the year about 28,700 tons of paper, valued at £548,000. There were 21 breweries, which produced 3,434,000 gallons of beer. Of the 1,285 factories under inspection in 1914 for the ginning, cleaning, and pressing of cotton there were 402 in the Central Provinces and Berar, 454 in Bombay, 149 in the Punjab, 114 in Madras, and 134 in the United Provinces. In Bengal there are 109 jute presses. Silk filatures are found chiefly in Bengal and indigo and lac factories in Bihar and Orissa. Flour mills are most numerous in the Punjab, Bombay, and Bengal, and sugar factories in the United Provinces, Madras, and Bihar. Rice mills and saw mills (for teak) are numerous in Burma. They are mainly in European hands. Printing presses are numerous in Bengal, Bombay, and Madras. Iron and brass foundries (including engineering workshops) number 30 in Bengal and 22 in Bombay. The Tata Iron and Steel Works, in Chota Nagpur, established in 1912, have been considerably expanded.

Factory Legislation and Inspection.

Act XII., of 1911, regulates the working of factories in India. It extends to all factories employing 50 hands and upwards in any part of the year, and may by order of any Provincial Government be extended to factories employing 20 hands and upwards. The Act was operative throughout British India in 1914, and it is reported that a commendable effort was made by all concerned to ameliorate the conditions of factory life, the inspecting staff receiving the active co-operation of mill managers and agents. The staff of factory inspectors has been recently increased to 14. A separate staff is appointed for the inspection of steam boilers. The total number of factories returned in 1914 as registered under the Act was 2,936, including those belonging to the State and local bodies. The average number of hands employed daily was 951,000 including 144,000 women and 60,000 children. Of the 4,929 accidents reported most were not serious and many were not due to contact with machinery. There were 162 convictions for breaches of the Act, of which 56 were in the Central Provinces and Berar, 24 in Bombay, and 30 in the Punjab. The offences were chiefly the irregular employment of women and children and the failure to send in the prescribed returns, &c. The sanitary condition of the factories and the health of the operatives were generally good.

Patents and Designs.

A new Patent and Designs Act was passed in March 1911. It provides a more effective procedure in regard to the grant of patents and to their subsequent operation, and reduces the fee for the registration of designs. It encourages the inventor, while giving better protection to him and to the public. Of 588 applications in 1914 for leave to file specifications 436 were accepted. Of these applications 56 came from Indians and 117 from other residents in India. The subjects of the patents applied for in 1914 were chiefly chemical appliances and preparations, railways, electric contrivances and bicycles. The number of applications for registering copyright in designs rose from 741 to 1,440.

(Foreign Seaborne Trade.)

CHAPTER X.—TRADE.

(Detailed information regarding the Trade of British India is annually furnished in three Parliamentary Bluebooks: Tables of the Trade of British India, Review of the Trade of India, and Statistical Abstract for British India, Tables 134 to 172.)

Foreign Seaborne Trade.

The foreign seaborne trade of India has greatly increased during the last 15 years, as the marginal figures relating to private merchandise show (values in thousands of pounds at 15 rupees to the pound). In 1914–15, owing to the war, there was a decline as compared with 1913–14 of 24·7 per cent. in the imports and 27·3 per cent. in the exports. The value of re-exports was £2,738,000, a decline of 12 per cent. The total trade (including re-exports, treasure, and Government stores) amounted to £236 millions as against £327 millions in 1913–14, a decline of 27·8 per cent.

Year.	Imports.	Exports of Indian Merchandise.
Average—	000£	000£
1900–1 to 1904–5	55,745	87,336
1905–6 „ 1909–10	77,281	111,874
For the year 1910–11	86,236	137,081
„ 1911–12	92,383	147,879
„ 1912–13	107,332	160,899
„ 1913–14	122,165	162,800
„ 1914–15	91,953	118,320

Trade and the War.—Trade during the pre-war months of 1914–15 was fairly good in spite of adverse factors. The effects of the war, which covered eight months of the year, on overseas, coasting and inland trade were great and far-reaching. The shutting off of Indian exports to Germany (India's largest customer after the United Kingdom) and other enemy countries was more serious than the stoppage of their import trade, owing firstly to the greater value of the exports and secondly to the fact that the imports were largely capable of replacement from other sources. The curtailment of trade with France and Belgium and with neutral countries, the scarcity of tonnage, and the dislocation of the world's exchanges affected both the direction and volume of trade. Many emergency measures had to be taken regarding trade and finance. The steadiness of exchange was striking.

Principal Imports and Exports.—The marginal table shows the values of the chief articles of merchandise imported and exported during the last two years. The imports show a decline under all the most important heads. War, absence of tonnage, and previous overtrading were the chief causes of the large decrease in cotton goods. The fall was heavy in metals, sugar, and woollen goods. The exports of raw cotton, raw jute, and oil-seeds, which Germany bought largely, were greatly reduced. Cotton manufactures, rice, and wheat fell away considerably. Tea and coffee improved.

Imports.	1913–14.	1914–15.
	000£	000£
Cotton goods (including twist and yarn).	44,200	32,666
Metals	14,683	9,170
Sugar	9,971	7,015
Railway material	6,690	6,722
Machinery and millwork	5,172	4,027
Mineral oils	2,744	2,938
Hardware	2,632	1,707
Woollen goods	2,568	1,256
Silk manufactures	2,068	1,293
Provisions	1,649	1,405
Liquors	1,491	1,218
Spices	1,155	1,146

Exports (Indian Merchandise).	1913–14.	1914–15.
	000£	000£
Cotton, raw	27,362	22,326
Rice	17,738	11,439
Jute, raw	20,551	8,607
„ manufactures	18,849	17,213
Seeds	17,117	9,769
Wheat and wheat-flour	9,590	6,159
Hides and skins	10,632	8,385
Tea	9,983	10,352
Cotton manufactures	8,080	5,340
Wool, raw	1,670	1,579
Lac	1,811	1,070
Coffee	1,024	1,102

Trade by Countries.—Imports are classified according to the countries whence they are consigned to India, and exports according to the countries to which they are consigned, *i.e.*, to the countries of final destination so far as known.

The share of the United Kingdom in the total trade of 1913–14 in private merchandise was 40·7 per cent.; of Germany, 9; Austria-Hungary, 3·3; of France, 4·8; of the United States, 6·2; of Belgium, 3·8; of Japan, 6·4. The corresponding percentages for 1914–15 were 47·1, 4·6, 1·8, 3·3, 6·9, 2·2, and 6·3. Taking imports and exports separately for 1914–15, about 68 per cent. of the import trade (exclusive of Government stores) and 32 per cent. of the export trade were conducted with the United Kingdom.

Treasure.—The net import of gold fell from £15,549,000 in 1913–14 to £5,098,000 in 1914–15, that of silver from £8,689,000 to £5,914,000.

Shipping and Freights.

During 1914–15 the number of steamers and sailing vessels with cargoes and in ballast which entered from and cleared to all countries was 7,960, with a tonnage of 12,857,885 as compared with 8,617 with a tonnage of 17,386,408 in 1913–14. The figures do not include the large number of transports hired by Government owing to the war. Of the total, 99 per cent. was steam tonnage. Tonnage under the British flag represented about 80 per cent. of the whole. As regards the number of vessels under the principal flags, British declined from 4,951 in 1913–14 to 4,827 in 1914–15, German from 559 to 172, Austro-Hungarian from 285 to 83, and Japanese from 191 to 183.

Freights, which were low when war broke out, advanced by the end of March 1915 to thrice the pre-war rates, the demand for carriage being greatly in excess of the supply of ships.

Land Frontier Trade.

The statistics of land frontier trade shown in the margin include a great deal of trade that is not strictly foreign. Owing to difficulties of registration accurate returns are impossible, but there is a considerable trade with Afghanistan, Nepal, Western China, Tibet, Bhutan, and Siam. The principal exports from India are cotton yarn and manufactures (chiefly foreign), metals, and provisions; and the chief imports into India rice and other grains, provisions, fruits, living animals, wool, hides and skins, oilseeds, and timber.

Year.	Imports.	Exports.	Total.
	000£	000£	000£
1912–13	7,660	6,986	14,646
1913–14	8,013	6,280	14,293
1914–15	7,627	6,327	13,954

Joint Stock Companies.

(*See also Statistical Abstract for British India, Tables* 212–3.)

There was a great decline in the formation of companies, only 107 with an authorised capital of £2,630,000 being registered in 1914–15, as compared with 345 companies with a capital of £44,270,000 in 1913–14. The decrease was due partly to war conditions and partly to the stringent provisions of the new Indian Companies Act of 1913, which came into force in April 1914. During the year 22 Indian joint-stock banks, with head offices in India, failed. Altogether 62 banks failed in the period from November 1913 to July 1915.

(*Note.*—Statistics of the working of the Merchandise Marks Acts hitherto given will be found in the *Statistical Abstract for British India, Table* 183.)

CHAPTER XI.—PUBLIC WORKS.

General.

The operations included under the head of "Public Works" comprise Railways, Irrigation, and "other Public Works (Civil)." The Railway Department is under the control of the Government of India, exercised mainly through the Railway Board. The establishment employed on irrigation and on other public works (chiefly buildings and roads) is subdivided according to provinces, and controlled by the local administrations, in subordination to the Supreme Government. The strength, on 30th June 1915, of the superior engineer and upper subordinate establishments was 188 and 61 respectively for railways, and 771 and 1,195 respectively for irrigation, buildings, and roads, &c.

The annual expenditure on public works is met partly from money raised by loan and partly from the ordinary annual revenues. Borrowed money is expended mainly on railways and the large irrigation works, which are expected to yield sufficient net revenue to cover interest on the capital expended on them.

Railways.

(*For further details see Annual Administration Report on the Railways in India and Statistical Abstract for British India, Tables* 44 *to* 47, 68–9, 71, 74 *to* 78, 124 *to* 132.)

Finance.—In the financial year 1914–15 there was a net capital expenditure on railways of £10,509,006 for construction, rolling stock, &c. Of the permanent public debt on 31st March 1915, £233,195,887 was on account of railways. The marginal table, taken from the Finance and Revenue Accounts of the Government of India, shows the railway revenue and the expenditure charged to revenue for 1914–15. The net gain to the State was £2,158,034. Expenditure includes all charges for interest on capital outlay. According to actuarial calculations the figures for "Annuities in purchase of railways" in 1914–15 may be divided into interest £2,458,889 and capital redeemed £898,776. The figures also include charges for land required by the companies, and for miscellaneous items, such as headquarters establishment and surveys.

—	India.	England. (Sterling converted at £1=Rs. 15.)	Total.
Revenue.	£	£	£
Railways—			
State railways—(Gross traffic receipts)	36,104,743	424	36,105,167
Deduct:			
Working expenses	*19,685,811*	—	*19,685,811*
Surplus profits paid to companies	*690,898*	—	*690,858*
Net receipts	15,728,034	424	15,728,458
Subsidised companies — (Government share of surplus profits and repayment of advances of interest).	23,396	47,295	70,691
Total £	15,751,430	47,719	15,799,149
Expenditure.			
Railway Revenue Account—			
State Railways—			
Interest on debt	4,189,391	3,625,050	7,814,441
Annuities in purchase of railways	—	3,357,665	3,357,665
Sinking funds	—	199,554	199,554
Interest chargeable against companies on advances.	16,523	81,250	97,773
Interest on capital deposited by companies.	54,098	1,932,369	1,986,467
Subsidised companies—			
Land, &c.	97,990	—	97,990
Miscellaneous railway expenditure	87,225	—	87,225
Total £	4,445,227	9,195,888	13,641,115

The aggregate gross earnings of *all* Indian railways, including steamboat service and suspense items, but excluding indirect charges, amounted to £40,280,062, the working expenses to £21,827,328, and the net earnings to £18,452,733. The return on the total capital outlay on open lines, amounting on 31st March 1915 to £346,147,533, was 5·33 per cent. as against 6·19 per cent. for 1913–14.

The length of line open on 31st March 1915 was 35,285 (of which 26,232 miles represented State lines), an increase of 629 miles since 31st March 1914. The mileage under construction at the end of 1914–15 was 437. The number of passengers carried in 1914–15, 451 millions, and the tonnage of goods, 81 millions, showed a slight reduction, chiefly due to the effects of the war.

Important Works completed and in progress.—Full particulars of works completed and in progress during the year, and of projects for new lines, are given in the Administration Report on Indian Railways for 1914–15. A few details of the principal works of the year are given below.

Eastern Bengal Railway.—The important Lower Ganges Bridge, near Sara, begun in 1908, was opened in 1915 and named the Hardinge Bridge. This bridge, designed to carry the increasing traffic between Calcutta and Northern Bengal and Assam, is one of the most important engineering works in the world. It is 5,900 feet long, and the whole work, including approaches and river training works, has cost about £2,400,000.

Cawnpore-Banda Railway.—This broad-gauge line of 76 miles has been constructed to open up the Cawnpore district and a part of Bundelkhand.

Jodhpur-Phalodi Railway.—This metre-gauge line has been constructed by the Jodhpur State primarily to afford protection against famine.

Burma Railways.—The important Southern Shan States Railway was opened as far as Aungban, which now has through connection with Rangoon, a distance of 376 miles.

Rolling-Stock.—Large additions were made to the stock of wagons and trucks, and the number of locomotives was considerably increased.

Striking results have been obtained from the use of superheaters on engines, great savings in both fuel and water consumption being effected, while heavier loads are hauled. Several railways have decided to fit all their main line engines with superheaters.

Preliminary trials with oil fuel have been successful and final trials are in progress to ascertain the relative costs of oil fuel and coal.

Accidents.—The number of passengers killed during 1914–15 was 233, and the number injured 871. Of railway servants 443 were killed and 859 injured.

Railway Staff.—The total number of railway servants at the end of 1914–15 was 600,116, including 7,640 Europeans, 10,345 Anglo-Indians, and 582,131 Indians.

Contracts.—A contract was made by the Secretary of State with the Great Indian Peninsula Railway Company for working the newly constructed Cawnpore-Banda State railway.

Purchase of Tarkessur Railway.—This line of 22 miles was purchased by the Government and made over to the East Indian Railway Company to work as a part of their system from 1st January 1915.

Branch Line Companies.—For the first time the mileage of railways completed by companies working on rebate terms exceeded that of railways financed by any other one method. Of the total mileage of 237 financed under these terms 210 miles have been constructed with money raised in India.

The War and the Railways.—The railways not only took part in the despatch of the expeditionary forces at short notice, but assisted in fitting out transports, and built ambulance trains, armoured trains, and armoured motor cars. Many railway officials joined for military duty.

Irrigation.

(*For further details see Statistical Abstract for British India, Tables* 44–7, 68–9, 71, 74 *to* 76, 119, *and* 133.)

Irrigation works may be roughly divided into canals and tanks, though these are frequently combined. Canals have been utilised on the largest scale and with the most successful results in the United Provinces, the Punjab and Sind, and the deltas of the large rivers in the Madras Presidency. Tank irrigation is the common system in Madras, Bombay, and the Central Provinces.

(Irrigation.)

Financially considered, irrigation works are classed as "major" or "minor," the former class including those undertaken from borrowed money, in the expectation that they will yield sufficient net revenue to cover the interest on the capital expended. It also includes the works classed as famine protective, which are constructed not from borrowed funds, but out of the annual grant from revenue for famine relief and insurance. The capital expenditure on construction not charged to revenue in 1914–15 was £1,123,180. The expenditure on construction charged to the famine grant was £501,311. The amount available for the construction of protective works from the grant for famine relief and insurance is now supplemented by a further grant from revenue, which amounted to £59,863 in 1914–15. The cost of constructing the "minor" works, as well as the annual expenditure on their working and maintenance, are met from ordinary revenues, and for most of these works distinct capital and revenue accounts are not kept.

According to the Finance and Revenue Accounts of the Government of India the revenue from irrigation works in 1914–15 was £4,680,969, including £2,758,490 for direct receipts from "major" works, £1,667,864, portion of land revenue due to irrigation, and £254,615 for "minor" works and navigation. The expenditure charged to revenue was £3,754,268, including £1,289,393 for working expenses, £1,409,529 for interest on debt, the revenue grant of £59,863 for protective works, and £995,483 for minor works and navigation. Of the permanent public debt on 31st March 1915 £41,122,020 was on account of irrigation.

The area irrigated in 1914–15 by all classes of irrigation works for which capital and revenue accounts are kept was 19,313,400 acres, but the total area irrigated by all Government irrigation works was about 25,600,000 acres. The capital outlay (direct and indirect) to the end of the year was £33,780,252 on productive major works, £4,364,073 on protective major works, and £4,525,445 on minor works for which both capital and revenue accounts are kept. The net receipts on capital outlay for these three classes were 8·97, 0·59, and 4·52 per cent. respectively.

There are great differences in the financial success of the irrigation works in the various provinces. These are due to physical conditions, such as surface, soil, climate, and the absence or presence of large rivers with a permanent supply of water, as well as to differences in the character and habits of the people. There are also considerable differences in the manner in which the irrigation revenue is assessed and collected, which have an important bearing on the financial success of the works.

Efforts have been made to organise navigation services on some of the larger irrigation canals, without much success. A few canals which have been constructed for navigation purposes only are dealt with below.

The following are the chief features of the irrigation operations for 1914–15 in the different provinces :—

Bengal.—The major works in Bengal are the Midnapur Canal, for irrigation and navigation, and the Hijili Tidal Canal for navigation only. These canals and the minor works for navigation purposes are worked at a loss. Railway competition has caused a reduction in receipts in recent years.

Bihar and Orissa.—In 1914–15 the Orissa and Sone canals, both of which are major productive works, for irrigation and navigation, irrigated 908,416 acres and yielded only 1·74 per cent. on capital outlay. Water rates on the Sone canals were enhanced at the end of the year. The Tribeni and Dhaka canals, protective irrigation works, recently completed, irrigated 87,468 acres at a net loss of £19,630 for the year. The minor works include a navigation canal, the Orissa Coast Canal.

Bombay, including Sind.—An excellent year of irrigation was experienced in Gujarat, and the high inundation of the Indus favoured irrigation in Sind. The area irrigated was 2,387,000 acres. In Bombay proper work was continued on several protective schemes, including the Nira Right Bank Canal in the Deccan, the biggest protective work hitherto undertaken in India, the Godaveri Canals (nearly finished), and the Pravara Canals.

Burma.—Floods caused serious damage to irrigation canals, and the expenditure on repairs entailed a reduction in net receipts. Work on the Ye-u Canal was still in progress. The working of the navigation canals resulted in a heavy deficit. The Twante Navigation Canal improvement scheme, which has so far cost £400,000, was pushed on. Embankments again yielded an increased revenue.

Central Provinces and Berar.—The favourable monsoon reduced the demand for irrigation, and the total area irrigated declined. The head works of the Mahanadi Canal were completed and those of the Wainganga Canal were nearing completion.

Madras.—The expenditure on all irrigation works during the year amounted to over £588,000, and the receipts to £1,740,000. The total area irrigated was 7,179,200 acres. Further progress was made with the Tank Restoration scheme, on which £880,000 has so far been spent. Two great schemes were still under consideration, viz., the Kistna reservoir project, estimated to cost about £5½ millions and to bring over 700,000 acres under irrigation, and the Cauvery reservoir project, which provides for new irrigation of about 400,000 acres, and is estimated to cost over £2½ millions.

North-West Frontier Province.—There were three Government major works in operation at the end of the year, and the net revenue on the Lower Swat and Kabul River canals represented 11·77 and 9·13 per cent. respectively on capital outlay. The Paharpur canal was again worked at a loss. Work on the construction of the Upper Swat River canal, which was begun in 1907 and is estimated to cost £1,328,286, was almost completed. Part of the canal consists of a long tunnel through the Malakand range.

Punjab.—The area irrigated, 8,963,041 acres, was a record one. The net revenue from major works was £1,682,466, representing a return of 14·7 per cent. on capital outlay. The Lower Chenab canal, which irrigated 2,312,213 acres, yielded a net revenue of no less than 41·8 per cent. Rapid progress was made with the Triple Canal Project, which up to the end of 1914–15 had involved an expenditure of over £6,255,000. Over £15,000,000 of Imperial funds has now been invested in the Punjab Major Canals.

United Provinces of Agra and Oudh.—There was a net revenue of £570,000 on productive canals, representing a return of 8·68 per cent. on capital. A large number of famine projects were prepared, and progress was made with the new weir at Bhimgoda for the Ganges Canal. The area irrigated was 3,267,272 acres.

Buildings and Roads and other Public Works (Civil).

For further details see *Statistical Abstract for British India, Tables* 44–7 *and* 74.

This section embraces all operations of the Public Works Department other than Railways and Irrigation. It includes the extension and maintenance of the road system, the construction and repair of government buildings and many miscellaneous works of public improvement, such as lighthouses, harbours, embankments, boat bridges, ferries, and the water supply and sanitation of towns. The extension of local self-government has thrown a large portion of the smaller class of public works into the hands of the Local Boards, which generally maintain their own establishments, but in the case of any works of unusual difficulty have recourse to the professional skill of Public Works officers.

The operations of this branch are classed primarily under the head of Civil Works, the expenditure on which is chiefly met from provincial resources. The expenditure for 1914–15 amounted to £7,176,750, of which £961,221 was Imperial and £6,127,790 Provincial, while £87,739 was for expenditure in England. In addition £52,995 was expended by Civil officers from Imperial Funds. Receipts amounted to £288,219.

The following short account of Civil Works shows the most important works carried out during 1914–15 in the different provinces.

Delhi.—In 1914–15 the Imperial Delhi Committee, appointed to supervise the construction of the new Imperial Capital, was mainly engaged on preliminary work such as provision of tools and plant, &c., though some progress was made with buildings and communications. The capital expenditure was £360,361. The total debt incurred up to the end of the year was £927,381.

Bengal.—The salt *golas* and post office at Chittagong were under construction. Work was in progress on a number of administrative offices, courts, jails, police barracks, colleges and schools, hospitals, &c. The improvement of many roads in the Duars was also in progress.

Bihar and Orissa.—Sanction was given to a comprehensive project, estimated to cost £826,670, for the new capital at Patna, including works for the temporary headquarters at Ranchi. At Patna progress was made with the construction of the

(Buildings and Roads and other Public Works (Civil)).

High Court, Post Office, Government House, and Secretariat. At Ranchi a European hospital was built and a central asylum for European insanes was under construction.

Assam.—Improvements were made to official residences, and buildings for judicial, medical, educational, police, and other services were under construction. About £155,000 was spent on roads and bridges.

Bombay.—The total expenditure during 1914–15 was £994,726. The most important works in progress chargeable to Imperial Funds were the new Custom Houses at Bombay and Karachi. Under Provincial works £50,000 was spent on educational buildings, including hostels for students, £71,000 on police buildings, £43,500 on land revenue buildings, and £60,000 on medical buildings. Good progress was made with the Museum of Western India and the Science Institute at Bombay. Large amounts were expended on drainage and waterworks.

The expenditure of £170,000 on communications exceeded the amount for 1913–14.

Burma.—The increased expenditure was partly defrayed from a special Imperial grant, devoted chiefly to road improvements and the replacement of old wooden bridges by more durable structures. The buildings in progress included the new Customs House and Telegraph Office at Rangoon.

Central Provinces and Berar.—The year was again one of great activity and there was a record total expenditure on civil works of £581,000. The buildings included the large new post and telegraph office at Nagpur and other post and telegraph offices, forest and excise buildings, official residences at Nagpur and elsewhere, police buildings, law courts, schools and colleges, &c. The expenditure on communications amounted to £203,000, Large sums were again spent on causeways and bridges with the object of keeping all important lines of communication open throughout the year.

Madras.—Among the works completed were the new Council Chamber at Madras and the Collector's office at Guntur. Progress was made with the construction of a new Stationery Office at Madras and a new Collector's office at Madura.

North-West Frontier Province.—Much work has been done in improving the Khyber roads and the Hazara trunk road into Kashmir. The expenditure on works amounted to £209,354.

United Provinces.—Progress was made with the construction of the new High Court buildings at Allahabad and the post office at Lucknow. The Forest Research Institute at Dehra Dun and the post office at Allahabad were completed.

Punjab.—The expenditure on public works amounted to about £550,000, the highest figure yet attained. Good progress was made with the King Edward Memorial Scheme at Lahore, which includes extensions of the Mayo Hospital, a new Medical College, and connected buildings. The new Veterinary College and the new Government press building at Lahore were completed. The new road bridge over the Ravi at Lahore was completed.

CHAPTER XII.—POSTS AND TELEGRAPHS.

(*For further details, see Statistical Abstract for British India, Tables* 45 *to* 47, 90 *to* 94, *and* 95 *to* 97.)

The Indian Post Office and Telegraph Departments were completely amalgamated with effect from 1st April 1914. The receipts and charges on account of Posts and Telegraphs for 1914–15, as shown in the Finance and Revenue Accounts, were £3,596,973 and £3,257,263 respectively. The net revenue was £339,710.

Posts.

Extent of Postal Operations.—At the close of 1914–15 there were 19,158 post offices, 49,290 letter-boxes, 95,433 postal officials, and 156,973 miles of mail lines, showing increases as compared with 1913–14 of 212, 182, 1,478, and 867 respectively. During the year 1,043 million articles (including 24 million registered articles) were posted, a decrease of about 7 millions as compared with 1913–14. Letters numbered 446 millions, postcards 465 millions, and parcels 12½ millions. Nearly 3 million articles were insured; and a sum of £8,364,500 was collected on 9,633,000 value-payable articles.

Alterations in Postal Arrangements during 1914–15.—On 1st April 1914 the two postal circles of Bengal and Eastern Bengal and Assam were replaced by two new circles called Bengal and Assam and Bihar and Orissa.

Foreign Correspondence.—The usual statistics of the correspondence were not kept owing to the dislocation of the foreign mail service. The number of foreign parcels sent and received fell from 994,921 to 793,733, of which more than half were exchanged with the United Kingdom.

Money Orders.—The number of inland and foreign money orders, ordinary and telegraphic, issued was over 30 millions, and their value was £37,000,000.

Savings Bank.—The number of accounts in the Post Office Savings Bank was 1,644,000, a slight increase on 1913–14. The total balance at the credit of depositors at the end of the year was nearly £10,000,000, a decline of about 35 per cent. On 1st April 1914 the annual limit of Rs. 500 for cash deposits was raised to Rs. 750 net, and the maximum limit was raised to Rs. 5,000 for deposits and for investment in Government securities.

Offences.—There were 23 cases of highway robbery as against 25 in 1913–14.

The number of postal officials found guilty of criminal offences was 476, as against 485 in 1913–14.

Sale of Quinine.—In 1914–15 21,812 lbs. were sold to the public through the Post Office, as compared with 12,059 lbs. in 1913–14.

The Post Office and the War.—The overland route *viâ* Brindisi was closed and the all-sea route *viâ* Gibraltar adopted. The Indian post offices maintained at Bagdad and Basra since 1868 were closed on 1st October 1914, but the Basra office was reopened, and new post offices were opened at Fao and Koweit after the outbreak of war with Turkey. The privilege of sending correspondence of all classes to India free of postage was granted to members of all the Indian Expeditionary Forces. Letters, parcels, and money orders were allowed to be sent free of charge from India to British and Indian prisoners of war interned in Europe. Postal articles for and from prisoners of war interned in India were accepted free of postage, registration or insurance fees, and money orders were transmitted without commission. Field post offices were sent from India to accompany all the Indian Expeditionary Forces, the chief base post office being established at Bombay.

Telegraphs.

The following statement refers to the whole of the telegraph system under the direct control of the Government of India, but excludes that of the Indo-European Telegraph Department, for which, as usual, a separate account is given.

Extent of Telegraphic Operations.—The system on 31st March 1915 consisted of 84,124 miles of line and 330,033 miles of wire and cable.

At the end of the year there were 10,414 telegraph officials, and 8,438 out of 10,661 telegraph offices were open for public business. Of the total, 3,199 were combined post and telegraph offices, and 5,022 were railway offices.

(Telegraphs.)

The total number of inland telegrams transmitted was 14,919,000 and the charges realised amounted to £659,500, representing a decrease of ·13 per cent. in number, and an increase of ·13 per cent. in value.

Owing to the war the total number of foreign telegrams fell from 1,658,000 to 1,271,000, a decrease of 23 per cent., but the number of words rose by 13 per cent., largely owing to the prohibition of code telegrams. The total receipts were £172,000, an increase of ·08 per cent.

The use of the new cable from Penang to Aden through Colombo reduced the trans-Indian foreign traffic by about 47 per cent. A through wire between Bombay and Madras was leased to the cable companies as an experimental measure from 1st June 1914 to encourage this traffic. A reduction of 4 annas a word in the rate for telegrams between India and Europe came into force from 1st May 1914.

Numerous temporary arrangements were introduced in consequence of the war. A large number of telegraphists and great quantities of stores were furnished to aid the military operations.

The total number of wireless stations rose from 17 to 18, including 10 coast stations. They worked satisfactorily.

Telephones.

On 31st December 1914 the number of departmental telephone exchanges was 175 with 5,766 connections, and the number established by licensed companies 11, with 9,710 connections. The gross rental obtained from telephone services rose from £50,000 to £57,000. Royalties paid to Government increased from £5,500 in 1913 to £6,100 in 1914.

Indo-European Telegraph Department.

This Department controls the system of telegraph lines and cables connecting the terminus of the Indo-European Company's telegraphs at Teheran and that of the Turkish telegraph lines at Fao with the Indian telegraph system at Karachi, and consists of 1,948 knots of cable, 2,724 miles of line, and 7,174 miles of wire. Included is a cable from Jask to Muscat, 219 knots in length. The Department also maintains a line from Teheran to Meshed, 568 miles, which is the property of the Persian Government. By an agreement dated 4th January 1913 with the Persian Government the Department undertook to reconstruct and maintain the Persian telegraph line from Borasjoon on the Shiraz-Bushire line to Ahwaz and Mohammerah, with the branch line from Ahwaz *viâ* Shushtar to Dizful.

The number of messages transmitted was 173,016, as against 383,079 in 1913–14. Of these, 15,356 were State telegrams, as against 3,578.

The capital outlay to the end of 1914–15 was £1,020,692. The gross earnings of the year were £169,184 as against £131,130 in 1913–14. The net profit was £81,278, as against £53,676 in 1913–14, and the return on capital was 7·96 per cent. as against 5·32 per cent. The increase was chiefly due to a large increase in the receipts from the Cis-Indian Joint Purse due to the war.

Under the Joint Purse Agreement, the share of the Department was £175,140, as against £136,133 in 1913–14. The amount paid into the Joint Purse was £63,904.

The departmental receipts from the Australasian Message Fund for 1914–15 were £15,504, being £7,802 more than in 1913–14, and an increase of £9,269 on the receipts for 1889, on which the original Australasian Message Fund was based.

There was no total interruption between Karachi and Teheran. Beyond Warsaw the route *viâ* Teheran to London has been totally interrupted since 31st July 1914. The Fao-Bushire cable was cut by the Turks on 3rd November 1914, and subsequently repaired. The Fao-Constantinople route has been totally interrupted from that date.

The general condition of the Persian districts through which the telegraph lines pass remained unsatisfactory, but the interruptions due to malice were less numerous than in previous years.

The staff of the Department have rendered valuable service during military operations. Offices were opened at Basra and Kurna.

CHAPTER XIII.—SCIENTIFIC DEPARTMENTS.

The Board of Scientific Advice.

This Board includes the heads of the Survey of India, the Meteorological, Geological, and Botanical Survey Departments, the Director-General, Indian Medical Service, representatives of the Agricultural, Forest, and Civil Veterinary Departments, and other authorities whose special attainments may be useful. It was established in 1902 to co-ordinate official scientific inquiry, and to advise the Government of India in the prosecution of practical research. The programmes of investigation are annually submitted to the Board for discussion and arrangement, and an annual report is published on the work done, as well as a programme of research for the ensuing year. The reports and the programmes are communicated to an Advisory Committee of the Royal Society. The Board held two meetings in 1914.

Survey of India.

The work of the Survey of India comprises the trigonometrical survey, topographical and forest surveys, special surveys and explorations, and map production. The total cost of the Department in 1914–15 was about £159,000.

In 1904 attention was drawn to the defective state of the topographical survey maps, and a Committee appointed to report on the subject made recommendations for altering the size and improving the quality of the maps. The Government of India finally decided that a scale of 1 inch to the mile would ordinarily be sufficient, reserved forests and special areas being surveyed on the scale of 2 inches to the mile and the ½-inch scale employed for waste and barren tracts. Of the total of 1,821,600 sq. miles included in the programme, 366,244 sq. miles were completed by September 1914. Of the 1-inch map, 158 sheets were published, making a total published of 1,036 out of an entire programme of 6,328. The total number of maps issued was 359,917.

During the year ending September 1914 field operations were carried on by 19 survey parties. The explorations in the Eastern Himalayas cleared up all doubts as to the course of the Brahmaputra river.

A report on the magnetic survey of India was prepared by a special committee.

Other Surveys.

Geological.—The preparation of a general geological map of India was continued during 1914 by surveys in Bombay, Burma, Rajputana, Central India, Kashmir, and the Central Provinces. Economic investigations, which form an increasingly important part of the Department's work, were conducted into bauxite, manganese, coal, potassium salts, &c.

Botanical.—The botanical survey is under a Director. An economic botanist is attached to the Department, and the economic botanists of the Provincial Government are associated with it. Much botanical work is done by forest officers and others outside the Department.

Zoological work is carried on by the Indian Museum, but proposals were under discussion for a regular Zoological Survey.

Marine survey work is under the Royal Indian Marine, who possess two specially-equipped vessels for the purpose.

Meteorological Department.

There are three first-class observatories which publish separate annual reports. There were 279 observation stations (of which 42 were non-departmental) at the close of 1914–15. Daily, weekly, and monthly weather reports, as well as seasonal forecasts and storm warnings, are issued. The system of flood warnings to canal, civil, and railway officers, to military officers, and to private firms continued to be useful, and 2,060 such warnings were issued during the year.

Agricultural Departments.

General.—The greater part of the scheme for the development of agricultural experiment and instruction formulated in 1905 has now been realised.

There are Agricultural Departments in every larger province under a Director of Agriculture with one or more Deputy Directors who are trained agriculturists. Besides these there are various specialists attached to the provincial departments and in some cases the Principalship of the Provincial Agricultural College is a separate post. In Bengal there is a fibre specialist. The officers directly under the Government of India include the Director of the Pusa Institute, who is also Principal of the Agricultural College and Agricultural Adviser, and eleven specialists (two entomologists, a pathological entomologist, two bacteriologists, two mycologists, two agricultural chemists, an economic botanist, and a cotton specialist). The above officers are all recruited in England; there is also a considerable number of locally appointed officers.

There are agricultural colleges in six provinces, besides the Central College at Pusa which is intended to provide more advanced training. In every province there are experimental farms. The Provincial Departments distribute selected seeds and manures, furnish advice as to implements and crops, conduct agricultural demonstrations, and publish agricultural information.

There is a Board of Agriculture which suggests and reviews programmes of work. Agricultural memoirs and an agricultural journal are published.

Pusa Research Institute and College.—The experimental work carried out at the farm and laboratory covered researches into the yield of sugar-canes, the refining of saltpetre, and milk analysis. Further progress was made with Pusa wheat, No. 12, with tobacco cultivation for cigarette tobacco, with the production of an improved indigo, and with the cultivation of grain, oil seeds, &c. Of plant diseases under investigation the most important is the virulent paddy disease, known as ufra. Numerous crop pests were investigated. The cotton specialist visited and reported on the various provincial cotton-growing stations.

The College is chiefly a higher teaching institution for post-graduate studies. During 1914–15 eight students were under training, of whom one was a private student; others were sent by local governments and Native States. Some visitors also worked at the Pusa laboratories.

Bengal.—There are six agricultural stations, each typifying a separate area, besides farms at Kalimpong and Chittagong. No entirely new scheme was started during 1914–15, but those started in the previous year were considerably developed. The fibre expert investigated the selection of jute seed and the proper manuring of jute. Sericultural experiments were continued and instruction was given in silk-weaving. A report on the survey and census of Bengal cattle was published.

The Fishery Department (which covers Bihar and Orissa as well as Bengal) has established *hilsa* and carp-hatcheries and has supplied a large quantity of carp fry to the public. A survey of fishery rights in the main rivers was conducted. A steam launch has been obtained for a systematic survey of the Sundarbans fisheries.

Bihar and Orissa.—There are now seven agricultural stations in all, including a newly-started station near Ranchi. Experiments at these stations covered tests of sugar-cane, Pusa wheat, indigo, jute, and crop-cutting.

The Agricultural College at Sabour is also the college for Bengal and Assam. Six students obtained the diploma.

Assam.—The departmental staff was increased. There are now four agricultural experiment stations, besides a fruit experiment station. Attention was devoted to rice, sugar-cane, potatoes, manures, &c. Poultry breeding has been a success in the Lushai hills. Weaving demonstrations were continued.

United Provinces.—The year was not a favourable one for development. Pusa wheat No. 12 has been adopted as most suitable for distribution in the greater part of the province. There was less activity in well-boring. Much of the time of the Agricultural Department is taken up with the provision of the first essentials of agriculture, seed and water, and increased financial assistance is needed, especially for the provision of manures.

The reorganisation of the Agricultural College at Cawnpore was completed.

Punjab.—There are agricultural stations at Lyallpur and Gurdaspur, besides two seed farms and a cotton farm at Hansi, which have recently been started. The

superiority of Punjab 11 wheat and American cotton 4-F have been demonstrated. Artificial manures are found to be uneconomical. Experiments for the reclamation of alkali lands have proved successful. An agricultural engineer has been appointed, chiefly for well-boring. There appear to be good prospects for sericulture as a cottage industry. The Agricultural College owing to recent changes is growing in popularity.

North-West Frontier Province.—The area of the experimental farm at Tarnab has been extended. Experiments were made with cotton, sugar-cane, wheat, barley, maize, fodder, and other crops. Good results have been obtained from local red chaunthra wheat, which is preferred by the cultivators. About 50 acres are occupied by young orchards and fruit-tree nurseries.

Central Provinces.—The Department has been strengthened, but its activities are still limited by the lack of an adequate supervising staff. Government farms are eight in number, and are chiefly devoted to cotton, rice, wheat, fodder, and sugar-cane. The Rosea cotton-seed has proved a complete success in the Nagpur-Berar country. Demonstrations of transplanted rice were continued and extended. The establishment of cattle-breeding farms is contemplated. At the Agricultural College separate courses in practical farming and in the more advanced science have been established.

Burma.—The Department was further enlarged. A new experimental station was opened at Yawnghwe and a seed farm at Yedashe. The chief experimental work was on paddy, the most important Burma crop, but cotton, sesamum, sugar-cane, wheat, millet, and other crops were also investigated.

Madras.—The revised courses at the Agricultural College were introduced in June 1914, and the number of students has doubled. The Agricultural Department is to be reorganised. There are ten agricultural stations. Their activities centred chiefly on seed selection, the use of manures, the treatment of palm diseases, and experiments in cotton, sugar-cane, and paddy cultivation.

Besides its work in freshwater pisciculture, the Fisheries Department successfully cultivated edible oysters and drew up a scheme for cultivating pearl oysters.

Bombay and Sind.—At the Agricultural College the number of students rose from 117 to 124—most of them short-course students. There are 20 agricultural stations, 19 plots and sub-stations, and graduate fieldmen demonstrators in almost every district. The cultivation of American cotton has made steady progress in Sind and excellent results have been obtained in the growing of sugar-cane on improved lines. A survey of the cattle in the Presidency has been completed. The services of the agricultural engineer are much in demand for well-boring and pumping.

Civil Veterinary Department.

This Department is responsible for all official veterinary work other than that of the army. Its duties are concerned with horse, &c., breeding, cattle-breeding, horse and cattle disease, and veterinary education. The total cost of the Department in 1914–15 was £194,980 (excluding expenditure by local bodies).

Horse, Mule, and Donkey Breeding.—In certain districts of the Punjab, Baluchistan, the United Provinces, and Sind, the control of horse, mule, and donkey breeding was, in 1903, transferred from the Civil Veterinary Department to the Army Remount Department, the work of the former being confined to cattle. Outside these districts the Civil Department controls all breeding operations. There were on the register at the end of 1914–15, 91 horse, 102 pony, and 115 donkey stallions. The total number of mares covered was 15,605. Most of the horse stallions are in the United Provinces, and most of the pony and donkey stallions in the Punjab.

Cattle Breeding.—Veterinary operations are directed towards improvement of the breeds of bovines, investigation of diseases, inoculation, and maintenance of veterinary dispensaries. There were at the end of the year 73 Government bulls and 973 bulls owned by district boards, the great majority of the latter being in the Punjab. There are provincial cattle farms in the United Provinces, Assam, Bombay, Central Provinces, Bengal, and Bihar and Orissa, and the Hissar Government Cattle Farm in the Punjab, the most important centre of cattle breeding. This farm contained 29 herd bulls and 1,514 cows, besides a large number of young stock and cultivation bullocks, and some

(Civil Veterinary Department.)

mules, donkeys, and sheep. A considerable number of cattle fairs and shows were inspected. Prizes are offered out of Imperial and local funds.

Disease.—(a) *Equines.*—Of 395 reported deaths from glanders, over one-half were in Bengal. There were 548 deaths from surra, mostly in Bombay and Sind, and the Punjab, 61 from anthrax, and 857 from other contagious diseases.

(b) *Cattle.*—Owing to the difficulty of collection, statistics of mortality from contagious diseases among cattle are defective. The number of reported deaths was 236,360, as against 193,741 in 1913–14. The deaths from rinderpest numbered 111,629, as against 91,055 in 1913–14. There were 439,666 inoculations against rinderpest.

The veterinary hospitals and dispensaries, at which 810,404 animals were treated during the year, numbered 424.

The camel specialist was at work on surra and other diseases.

Subordinate Staff.—In 1914–15 105 veterinary inspectors and 959 veterinary assistants were employed.

Veterinary Instruction.—The number of students who graduated in 1914–15 at the four veterinary colleges of the Punjab, Bengal, Bombay, and Madras, and the Burma Veterinary School was 111. There were 370 students under training at the close of the year.

Archæological Department.

The primary function of this Department is the conservation of monuments of historic and architectural interest under the Ancient Monuments Preservation Act, but exploration is undertaken so far as means and opportunity permit. In 1914–15 special attention was again paid to the preservation of Muhammadan monuments in Delhi province and in the Meerut district of the United Provinces and the Karnal district of the Punjab. In Burma active work was undertaken mainly in Pagan, Prome, and Old Prome. In the North-West Frontier Province excavations were again in progress at Taxila, 20 miles north-west of Rawalpindi, where Buddhist relics were found. In Hyderabad an Asokan edict was discovered. An epigraphist has been appointed to deal with the mass of material available in Burma.

Medical Research Institutes.

In 1907 the bacteriological laboratories in India were placed on a definite footing. In 1911 was instituted a Central Research Fund for research into epidemic diseases, with a government endowment. The fund is under a Scientific Advisory Board. The Research Fund Association publishes a quarterly "Indian Journal of Medical Research." During 1914–15 researches were undertaken into kala azar, cholera, goitre, leprosy, tuberculosis, diabetes, plague prevention, &c.

At the Central Research Institute, Kasauli, vaccines and sera were prepared as usual for Government and private institutions, pathological and other specimens were examined and classes were held in bacteriological method and technique. Investigations were made into snake venoms and rabies. The Bombay Bacteriological Laboratory is the headquarters of the Plague Research Commission. A large quantity of its output of anti-plague vaccine goes to countries outside India. At the King Institute of Preventive Medicine, Madras, the usual examination was conducted of pathological samples and samples of water supply.

Imperial Forest Research Institute and Forest College, Dehra Dun.

The work of the Institute comprises tuition and research in sylviculture, forest economy, zoology, botany and chemistry. During 1914–15 investigations were undertaken with a view to the utilisation of many kinds of forest produce, such as antiseptics for timber, railway sleepers, wood for matches, paving blocks, &c., resins, tan-barks, and other products. The zoologist studied *sal* insect pests in Bengal.

In the Forest College on the 30th June 1915 there were 71 students attending the Rangers' class and 21 attending the Provincial Service Class.

CHAPTER XIV.—EDUCATION.

(*For further details see Statistical Abstract for British India, Tables* 45 *and* 46 *and* 103 *to* 113.)

General.—Educational institutions in India are of two classes :—

(1) Those in which the course of study conforms to the standards prescribed by the Department of Public Instruction or by the University, and which either undergo inspection by the Department, or else regularly present pupils at the public examinations held by the Department or by the University. These institutions are called "public," but may be under either public or private management. To the latter class, for example, belong those "aided schools," receiving grants from Government or from local or municipal boards, which occupy so important a place in the system of Madras, Bengal, and other provinces.

(2) Those which do not fulfil the above conditions, and are called "private."

The system of education operates, generally speaking, through three grades of institutions, viz. :—

(i) Primary schools, which aim at the teaching of reading, writing, and such elementary knowledge as will enable a peasant to look after his own interests.

(ii) Secondary schools, which are divided into English and Vernacular. Those in which English forms part of the regular course of study of all the scholars, or at least of all the scholars in the higher classes, are counted as English schools; if English is not taught, or is an optional subject only, they are reckoned as Vernacular.

(iii) Colleges, the students in which, having passed the matriculation examination of a University, are reading for the examinations required for a degree.

In addition to these there are various institutions of a special character, such as technical schools teaching arts and industries, engineering and other branches of applied science; law schools; medical schools and colleges; and normal schools for the training of teachers.

The general educational policy of the Government of India was declared at length in a Resolution published in March 1904, of which some account was given in the issue of this Statement for 1903–4; and more recently in the Resolution of 21st February 1913, published in the Sixth Quinquennial Report on Education in India, Cd. 7486 of 1914. A brief narrative of educational progress is now published annually by the Government of India, to supplement the Quinquennial Reviews.

System of Management.—The Department of Education in the Government of India was created in 1910. There is, further, in each province, save in Coorg, a department of Public Instruction, subject to the Local Government, which advises as to educational needs, administers the funds allotted, inspects, examines, frames rules and prescribes curricula. Its controlling powers, however, are shared, as regards higher education, with the universities, and, as regards elementary education, with the civil authorities and the local and municipal bodies. The great majority of institutions are maintained by the boards or by private agencies, which in turn may receive aid either from the board or from the department. The inspecting agency is, with minor exceptions, included in the Government services. The civil authorities are concerned with education as being in general charge of all branches of administration in their jurisdiction. The bulk of elementary education is in the hands of municipal and district boards, which not only maintain schools but also disburse grants to schools maintained by private bodies or persons. In the discharge of their duties of control, including the closure of their own schools, the appointment and dismissal of staff and the disbursement of aid to privately managed schools, the boards are guided by rules issued by the Local Government. The curriculum is that prescribed by Government; and the scale of grants to aided institutions must be generally in accordance with the departmental rules. Private agencies are a factor of great importance in the educational system, and include missions, Indian societies and committees, and individual managers, who are generally also the teachers. As controlling agencies the Universities are of great importance, since they frame courses, conduct examinations for diplomas and degrees, affiliate and inspect colleges, and prescribe the curricula in the upper classes of high schools preparing for the matriculation examination. Finally,

(Education.)

there are a number of committees (text-book, visiting, ladies' for girls' schools), as well as governing bodies for the detailed control of individual institutions.

Cost of Education.—The total cost of the educational system is shared almost equally between public and private funds. By the former are meant provincial revenues (*i.e.*, the revenues of the Local Governments), enhanced from time to time by grants from the Imperial Government, and municipal or district board funds. Municipal and district or local boards levy cesses, but the income so resulting is generally increased by Local Governments, either by equilibrium grants or by special grants.

The following is a short summary of some of the more interesting features of the year's record in the several provinces.

Madras.—In the Presidency there were 999,685 and 265,623 male and female scholars in 26,917 and 1,527 primary schools for boys and girls respectively. Secondary schools numbered 364 for males (with 125,455 scholars) and 69 for females (with 10,630 scholars). In the 34 Arts and 3 professional colleges for males there were respectively 8,180 and 1,027 students. The figures for elementary education show a marked advance on those of the previous year, and the percentage of male scholars to the male population of school-going age rose to 40·8. Further progress was recorded in all grades of female education. A special feature of the year was the opening of a Government College for women. The percentage of female scholars to female population of school-going age rose from 8·8 to 9·4. The total expenditure on education for the year was £1,290,000, an increase of £90,000 on the amount for the previous year.

Bombay.—There were 17,865 institutions of all kinds in the Presidency during the year under review, and the number of persons receiving instruction in them rose from 1,029,017 to 1,039,352. Numerical progress was most conspicuous in the case of primary schools, the number of which rose to 16,910, the attendances aggregating 933,877. Further progress was made towards the completion of the programme for the improvement and development of secondary education. An inspector of drawing was appointed. Appreciable advance was made in connection with female education, the number of girls under instruction in primary schools being 111,999. The total expenditure on education rose from £1,063,548 to £1,162,278.

United Provinces.—Education continued to show progress during the year, the total number of institutions having risen from 17,656 to 17,801, and that of pupils attending them from 819,472 to 832,454. The percentage of scholars to the population of school-going age rose in the case of boys from 20·51 to 20·96 and in that of girls from 1·81 to 1·88. The numbers of primary schools for Indian boys increased from 10,370 to 10,537, and it is satisfactory to note that of the new institutions no less than 182 were intended to teach up to the upper primary standard. The number of scholars attending primary schools increased by about 3 per cent. There was a slight increase in the number of institutions for the education of girls and in the number of pupils attending them. The technical and industrial schools in the province continued to do good work. Three University Professorships, of Sanskrit, Economics, and Modern Indian History respectively, have been instituted. The total expenditure on education from all sources rose from £855,339 to £943,720.

Punjab.—The year was marked by a steady increase in the number of educational institutions and of pupils, who numbered 445,909. More than 400 new school buildings were either erected or in course of erection. The percentage of scholars to the population of school-going age rose from 22·79 to 23·11 in the case of boys, and from 4·76 to 4·81 in that of girls; the attendance has more than doubled in the course of 10 years. Girls' schools increased in number from 831 to 919, with 44,996 pupils. The number of secondary schools increased by 35 to 379, and the number of pupils from 95,570 to 101,584. The number of college students rose by 338 to 3,514. The total educational expenditure rose from £620,000 to £714,590.

Central Provinces and Berar.—Educational progress was maintained during the year under review. There were 4,529 institutions of various grades, and 347,666 pupils under instruction. The number of schools and scholars increased by 210 and 9,213 respectively. The increase was most marked in the field of secondary education. The pay and prospects of both primary and secondary teachers have been greatly improved. In the matter of higher education the need for an autonomous university for these provinces has been recognised, and a committee has prepared a

scheme, which has been submitted to Government and published for criticism. The total expenditure on education during the year amounted to £322,000.

Burma.—The year under review was one of steady progress. The number of public institutions increased from 7,066 to 8,347, and the attendance from 324,085 to 361,154. The increase in numbers was, of course, largest at the lower primary stage, but there was a noteworthy percentage of increase in the upper primary classes, while colleges showed a further marked rise in attendance. The proportion of scholars to population of school-going age is high for Burma when compared with other provinces, and the percentage for males rose to 47·19, and that for females to 12·66. There was an increase of over 11,000 in the number of girls attending school. A scheme for a provincial university at Rangoon is under consideration. The total expenditure during the year amounted to £462,340 as compared with £410,310 in 1913–14.

North-West Frontier Province.—The rapid progress made in the three previous years was maintained. One hundred and five new primary schools were opened during the year, and the number of pupils rose by 4,113. Female education is also beginning to make headway in municipal areas. The Islamia College and School did good work throughout the year, and the number of college students has nearly doubled. Proposals for the opening of a class for the training of teachers for Anglo-vernacular schools were sanctioned, and a system of school final certificates was instituted. The total expenditure on education amounted to £64,316.

Assam.—With the assistance of the special grants received from the Government of India, a general advance was made during 1914–15 in every branch of education. The number of institutions of all kinds increased from 4,578 to 4,822, and the number of pupils attending them from 215,141 to 233,883. Great activity was shown in the field of primary education, attendance in boys' primary schools having increased by more than 8 per cent. since last year. Fees have been entirely abolished in vernacular schools, and the pay of all teachers has been greatly improved. Female education likewise, notwithstanding an insufficiency of teachers, showed a satisfactory advance, the attendance having risen by nearly 18 per cent., and the percentage of pupils to girls of school-going age from 4·6 to 5·66. Expenditure on education rose from £155,219 in 1913–14 to £176,950 in 1914–15.

Bengal.—The number of all classes of institutions increased from 42,835 to 44,672, while that of the pupils attending them increased from 1,747,608 to 1,799,889. Arts colleges continued to attract students in increasing numbers, the total number for 1914–15 being 15,921, or 1,175 more than in 1913–14. In secondary education there was an increase of 83 schools. The number of primary schools for boys rose by 866 to 28,327, with 1,046,694 scholars, a net increase of 19,010 pupils during the year. Purely vernacular education continued to decline in favour. Female education showed steady progress; the number of girls' schools increased from 7,573 to 8,268 within the year, and the number of scholars from 230,729 to 247,971. The number of Muhammadan students in the upper stages of instruction remained low; only in the primary stage was the percentage satisfactory. There was an all-round increase of expenditure in 1914–15, the total being £1,695,600 as against £1,471,000 for 1913–14.

Bihar and Orissa.—The year's record was one of continued progress. There were 29,644 institutions attended by 836,209 scholars as compared with 28,547 institutions and 809,966 scholars in 1913–14. The number of girls at school rose by nearly 11 per cent. There was an increase of 10 per cent. in the number of boys attending secondary schools. Students in Arts Colleges exceeded the number in 1912–13 by 26 per cent. The number of Muhammadan pupils is steadily growing. The total expenditure on education during the year amounted to £571,960.

(Municipalities.)

CHAPTER XV.—LOCAL SELF-GOVERNMENT.

General.

In most towns of any importance there are municipal committees, while in rural districts there are local boards, which are under the control of general district boards or send delegates to a district council. The systems vary in different provinces. In some provinces there are also non-elective local bodies discharging similar duties in the smaller towns, described as "notified areas," which are not fitted for full municipal responsibilities but require organised measures for sanitation and other purposes. In the chief ports specially constituted boards or "trusts" have charge of harbour works, port approaches, and pilotage. Bombay, Calcutta and some other cities also have "Improvement Trusts," distinct from the Municipal Corporations, for the purpose of clearing congested areas and making street improvements.

On 28th April 1915 the Government of India, in view of the recommendations of the Decentralisation Committee, published an important resolution on local self-government policy, recommending an expansion of the elective and non-official elements on local bodies, the concession to them of fuller financial powers, the substitution for octroi of direct taxation or terminal taxes in towns, and the levy of a cess on land for the promotion of light railways by district boards.

Municipalities.

(*For further details see Statistical Abstract for British India, Tables* 99 *to* 101.)

General.—The municipal bodies exist, raise funds, and exercise powers under enactments which provide separately for each province and the three Presidency capitals, Bombay, Calcutta, and Madras. In the municipalities as a whole rather more than a half of the members are elected by the townsfolk; in every town some, and in a few minor towns all, of the members are appointed by the Government. In almost every municipal body one or more Government officials sit as members. The number of Indian and non-official members, however, in every province largely exceeds the number of Europeans and officials. The municipal bodies are subject to Government control in respect of new taxation, loans, large public works, rules and byelaws.

There were 713 municipalities at the end of 1913–14 (the latest year for which complete figures are available), containing within their limits about 17 million people, or 7 per cent. of the total population of British India. Generally speaking, the income of municipalities is small.

Municipalities other than Calcutta, Bombay, Madras, and Rangoon get their loans chiefly from Government. The sources of municipal revenue, apart from loans and Government contributions, fall mainly under the two heads, "Taxation" and "Municipal Property and Powers apart from Taxation." Of the taxes the most important are octroi duties, levied in the United Provinces, the Punjab, the North-West Frontier Province, the Central Provinces and Berar, and Bombay, and the tax on houses and lands, which holds the chief place in the other provinces, as well as in Bombay city, and also contributes a considerable share of the receipts in the provinces named above. These two taxes each yielded about one-fifth of the total income of municipalities in 1913–14. There are also water, conservancy and lighting rates, tolls on roads and ferries, taxes on animals and vehicles, and in some places a tax on professions and trades. Steps have been taken in some cases to abolish octroi or reform its working, or to substitute for it direct taxation. The other sources of income include cattle-pound receipts, rents of municipal property, such as markets and slaughter-houses (an important item in Burma), and fees of various kinds. The objects on which municipal funds are spent are, mainly, water supply, roads, hospitals, vaccination, conservancy, drainage, lighting, fairs and markets, and education.

Delhi.—The income during 1914–15 amounted to £74,024, or rather less than the expenditure. There were Government grants for educational and other purposes. Work is hampered by limited resources.

Bengal.—Calcutta.—The revenue receipts amounted to £776,251, and the payments to £726,406. The loan liability increased to £3,329,967. A sum of £92,063 was spent on improvements. The Canal area drainage works were completed.

The Calcutta Improvement Trust, which was created in 1912, had an income of £82,000 in 1914–15 from special taxation, and £54,000 from the municipality. A number of improvement schemes have now been published, the most important being that for the improvement of the area round Kalighat. Proposals have been made for the extension of operations to suburban areas. Powers in regard to town-planning have been conferred on the Board.

Interior of Bengal.—The number of municipalities (111) was unchanged. Revisions of assessment in 41 of these usually resulted in increased demands. The total revenue for the year was £375,190. Government grants were received for water supply and drainage schemes. Important drainage schemes were in progress at Howrah and Burdwan.

Assam.—The total revenue was £47,656, and the expenditure £35,600. Substantial Government grants were made towards large improvement schemes. In ten municipalities sanitary inspectors were appointed.

Bihar and Orissa.—Ordinary receipts amounted to £190,922 and expenditure to £193,963, the decrease in income of £86,651 being chiefly due to a curtailment of Government grants for waterworks and other sanitary purposes.

United Provinces.—The amendment of the Municipal Act is under consideration. The total income of the municipalities was £591,415 and the total ordinary expenditure £638,114. Octroi, which yielded £196,328, has now been abolished in 37 towns. In most cases a tax upon circumstances and property has been substituted; other towns have tried a house tax or tax on trades, or both. Some discontent has been aroused by the substitution of direct for indirect taxation. Improvements trusts are carrying out works at Cawnpore, Lucknow and Allahabad.

Punjab.—Owing to unsatisfactory working, three municipalities were converted into notified areas. The elective system has not yet been introduced into 30 out of the 103 municipalities. In the Rohtak election all the candidates withdrew owing to the high prices demanded for votes. Nevertheless, greater interest was generally displayed in the municipal elections. The income of the year amounted to £477,850 (of which over 60 per cent. was derived from octroi) and the expenditure to £450,210. Great attention has been again paid to sanitation, and qualified health officers and sanitary inspectors have been appointed. Several municipalities opened cheap grain shops to relieve the high prices prevalent last cold weather owing to the war, and Government contributed a share of the cost.

North-West Frontier Province.—The income fell to £51,308 and the expenditure rose to £49,188. The decrease in income was chiefly due to smaller Government grants. Octroi receipts increased. Drainage and water supply schemes have been undertaken at Peshawur and elsewhere.

Central Provinces and Berar.—The elective principle is in force in all but seven of the 56 municipalities. Attendance at meetings was on the whole satisfactory, but interest was shown in but few of the elections. The total income of the municipalities rose to £220,612. The substitution in some other small towns of a terminal tax for octroi is contemplated. Expenditure amounted to £243,956.

Madras.—Madras City.—New water supply works and the Tondiarpet drainage works were completed and opened. The construction of model milch cowhouses was in progress. Anti-malarial operations were pushed on vigorously. Towards these a special Government grant of £65,000 was received. The receipts (including opening balances) for 1914–15 were £411,430, and charges £288,074. The debt amounted to £574,300.

Interior of Madras.—In 59 of the 63 councils the elective system is in force. Ten councils consisted entirely of Indian members. Receipts were £539,426. Expenditure was £507,962. An amended District Municipalities Act has been drafted.

Bombay.—Bombay City.—The ordinary income amounted to £827,560, despite reductions in the general tax and water rate, and the expenditure £830,260. The expenditure on Loan Works, chiefly waterworks, was £489,500. The total capital debt rose to £4,590,000, against which must be set sinking fund investments aggregating £1,005,000. Rateable assessments continued to rise.

The area acquired by the Bombay Improvement Trust was 102,122 square yards. The acquisition cases disposed of during the year numbered 191, and over 80 per cent. of them were settled amicably. The capital expenditure was £258,000.

Interior of Bombay.—Out of 156 municipalities 92 were privileged to select the persons to be nominated by Government as their presidents. During 1914–15 the Ahmedabad municipality was restored, but the Rajapur municipality remained suspended. Income declined to £608,027 owing to smaller Government grants and diminished octroi receipts due to stagnation in trade consequent on the war. Expenditure increased slightly.

(Municipalities.)

Burma.—Rangoon.—The ordinary revenue of the municipality rose to £290,200, and the expenditure fell to £293,200. A revised scale of taxation was introduced in order to distribute the burden of taxation more equitably. The programme of road improvement had to be curtailed owing to the war. Election rules have been revised, the qualifications of electors being raised and the term of office of members extended from two to three years. The municipal debt at the end of the year amounted to £885,866.

Interior of Burma.—Elected members sat on 10 out of 44 committees. The ordinary income amounted to £325,728, and the expenditure to £306,014.

District and Local Boards.

(*For further details see Statistical Abstract for British India, Table* 102.)

General.—In rural areas district and local boards perform the duties assigned to municipalities in urban areas. In each district, generally speaking, there is a board, subordinate to which are two or more local boards. In Madras the Union Committee or Panchayat is again subordinate to the Local Board. In 1913–14 there were 394 of these with 3,748 members. There are some Union Committees also in Bengal and Bihar and Orissa. The boards contain a varying proportion of elected members. Elected members form a large majority on the boards in the United Provinces and the Central Provinces and Berar. On all boards the great majority of members are Indians. The total number of all these boards in 1913–14 was 1,131. There are no local boards in the United Provinces and the N.W. Frontier Province.

The funds of district and local boards are largely derived from rates or cesses levied upon agricultural land over and above the land revenue. In addition, Government makes grants in aid to all boards. At the close of 1913–14, Government announced their intention of making assignments to the Provincial Governments to enable them to forgo certain amounts which had hitherto been appropriated for provincial use from the cess on land. The boards have also other sources of income, such as cattle pound receipts, educational receipts, medical receipts, tolls from ferries and bridges, and contributions for specific purposes from the provincial funds. Their expenditure is chiefly for roads and bridges, hospitals, vaccination, conservancy, drainage, water supply, primary education, markets, and resthouses.

Delhi.—Delhi Province has one District Board, which has done useful work in education.

Bengal.—Village Union Committees with powers of self-taxation increased from 66 to 76. Of the expenditure of District Boards about 56 per cent. was on public works and 23 per cent. on education. Their total income and expenditure (excluding loans and deposits) were £612,275 and £648,597 respectively. District Boards are being encouraged by the Government to impose a cess for the construction of railways, and several schemes were in progress. District Boards have been empowered to make grants-in-aid for veterinary work and agricultural improvements.

Assam.—Income fell to £184,898, of which 61 per cent. consisted of Government grants. Education expenditure has steadily increased. Water supply and communications have been much improved by the aid of grants. A Bill has been passed giving the boards extended powers and providing for the constitution of village organisations.

Bihar and Orissa.—The revenue was £491,114 and the expenditure £521,975. As a condition of surrender of the Public Works Cess a minimum standard of expenditure on primary education and sanitation was imposed, but there has been a general failure to attain the prescribed minimum.

United Provinces.—The most prominent feature of the year was the reorganisation required by the revision of the financial contracts between boards and the local government designed to give the boards greater financial stability and independence. Special attention is being given to education and sanitation and to veterinary work. Receipts declined to £784,836. Expenditure rose to £694,400.

Punjab.—Elections evoked little interest. The working of most of the boards was satisfactory. Their activities have been greatly increased by the liberal Government grants. Considerable attention was paid to education. A proposal is under consideration to empower boards by legislation to levy cesses for light railway development. The income of the boards rose from £529,300 to £546,000, including £216,700 from Government grants for education, civil works, &c.

North-West Frontier Province.—There is no elective system in this province, and the motive power of the official element is essential. The working of the district boards was satisfactory. Their aggregate income was £38,500.

Central Provinces and Berar.—There were few indications of any increased growth of public interest in elections. The attendance of members at board meetings leaves much to be desired. The expenditure on education was £74,600, Government grants amounting to £53,300. Income was £243,430 and expenditure £240,840. A Bill to amend the Central Provinces Local Self-Government Act has been framed.

Madras.—One-half of the members of the district boards are, as a rule, elected by the taluk boards. In 1909 the elective system was introduced for taluk boards, but of the 205 seats thrown open to election during 1914–15 only 55 were contested, and in 37 cases nominations became necessary for lack of candidates. The income of the boards and unions, excluding debt heads and contributions from one district board to another, amounted to £1,302,372, and the expenditure to £1,308,409. The railways of the Tanjore and Kistna District Boards yielded net profits of 6·7 and 10·1 per cent. respectively on the capital outlay.

Bombay.—The elective franchise was extended to all the boards of the Panch Mahals district. Income rose to £564,984, an increase of £9,000, owing chiefly to the collection of arrears. Expenditure rose to £562,831, owing principally to increased education grants.

Burma.—There are no local boards in Burma, but there are District Funds in Upper Burma and District Cess Funds in Lower Burma, which are administered by the Deputy Commissioners of the districts. These funds had an aggregate income of about £315,700 and an expenditure of about £295,100 in 1914–15. The receipts in Lower Burma include the proceeds of a 10 per cent. cess on the land revenue. The expenditure in Lower Burma was £242,000, chiefly on education and public works.

Port Trusts.

(*For further details see Statistical Abstract for British India, Table* 184.)

General.—The larger ports are administered by Port Commissioners, who are charged with the provision of suitable dock accommodation and other services necessary to shipping. The members, who include both Europeans and Indians, are for the most part appointed by the Local Governments, and represent the local commercial communities. Except in Calcutta the elected members are fewer than the nominated members. Port trustees are empowered, subject to the control of the Government, to levy dues on shipping and goods, to charge fees for services rendered, to contract loans for port improvements, to maintain the harbour and its approaches, and to erect warehouses, jetties, harbour lights, and docks. The chief ports are alone dealt with here.

Calcutta.—The income of the Port Trust for 1914–15 decreased to £963,356 owing to the war, and temporary war taxes on goods and shipping were introduced on 1st February 1915. The expenditure was £1,035,922. The deficit of £72,566 was carried forward as a debit balance. The capital debt of the Trust at the close of the year was £7,629,324. A 4 per cent. debenture loan of £667,000 was issued during the year. The expenditure on capital account was £579,100.

Bombay.—The revenue of the Port Trust reached a record figure of £684,880, but the expenditure was still higher and the deficit of £108,143 had to be met from the reserve fund. A 4 per cent. debenture loan of £847,000 was raised for the Alexandra and Hughes Docks, the Mazagaon–Sewri reclamation, and other works. The debt of the Trust amounted at the end of the year to £9,491,000. Railway improvements at the docks greatly facilitated the transport of troops and munitions. The Hughes Dry Dock was ready for occupation in May 1914.

Karachi.—The revenue for 1914–15 fell from £323,073 to £285,584. The expenditure rose to £312,775. The Trustees did not increase their charges. The capital debt at the close of the year amounted to £1,749,361.

Rangoon.—Receipts amounted to £302,552 and expenditure to £275,322. The effects of the war were slight. The debt (after deducting the amount at the credit of the Sinking Fund) was £1,742,308. The important Rangoon River training scheme completed at a cost of £921,781 (against an estimate of £1,000,000) has proved a great success. A new dredger has been employed with successful results.

Madras.—Receipts amounted to £83,815 and expenditure to £63,080. New buildings and other works were under construction.

(Vital Statistics.)

CHAPTER XVI.—CONDITION OF THE PEOPLE.

Vital Statistics.

(*Detailed information on Vital Statistics, Sanitation, &c. is contained in the annual Report on Sanitary Measures in India, published as a Parliamentary Paper, and in the Statistical Abstract for British India, Tables* 101–2 *and* 196 *to* 201 *and* 203.)

Registration.—The statistics given below are based on the 1911 census figures. Accurate figures, especially of the causes of death, are unobtainable owing to the difficulty of securing accurate registration. It is more difficult, especially in towns, to obtain information about births than about deaths. The actuarial reviews of the census returns show that the registered birth and death rates are understated. The high Indian birth-rate is due, not to exceptional fertility, but to the large proportion of married women. The high infantile death-rate is partly due to the weakness of the children of immature and ignorant parents, the prevalence of malaria, and faulty midwifery, but to some extent it is only apparent, being calculated on imperfect returns of births.

Birth and Death Rates.—The population of the areas in which births and deaths were registered in 1914 was 238,522,770. The number of births registered was 9,447,300 and the ratio 39·61 per mille, compared with an average of 38·63 per mille in the previous five years. The number of deaths was 7,155,171 and the ratio was 30·00 per mille, as compared with an average of 30·89 for the previous five years. The marginal table shows the birth and death rates per mille in 1914 according to provinces. The majority of the provinces had a higher mortality rate than in 1913.

Province.	Birth Rates (per mille).	Death Rates (per mille).
Delhi	48·86	37·98
Bengal	33·86	31·57
Bihar and Orissa	42·30	28·30
Assam	32·94	24·66
United Provinces	44·93	33·46
Punjab	46·30	31·96
N.W. Frontier Province	32·70	25·75
Central Provinces and Berar	51·37	36·69
Madras	33·50	25·00
Coorg	26·23	34·05
Bombay	37·43	29·48
Burma, Lower	34·69	22·99
Burma, Upper	36·69	26·22
Ajmer-Merwara	46·90	30·33
Total	39·61	30·00

Of the chief provinces the Central Provinces had, as usual, the highest birth-rate, 51·37 per mille, and also the highest death-rate, 36·69 per mille. The excess of births over deaths ranged from nearly 15 per mille in the Central Provinces and Punjab to about 2·0 per mille in Bengal.

Chief Diseases.—There are three main classes of fatal disease: specific fevers, diseases affecting the abdominal organs, and lung diseases. Intestinal and skin parasites, ulcers and other indications of scurvy widely prevail. Much of the sickness and mortality is due to deficient powers of resistance and to insanitary habits and surroundings. The table below shows the number of deaths from all causes and from each of the principal diseases recorded in British India and the death-rates per 1,000, during the three years from 1912 to 1914:—

Years.	Deaths from all Causes.	Cholera.	Small-Pox.	Fevers.	Dysentery and Diarrhœa.	Plague.	Respiratory Diseases.
1912	7,090,991	407,769	89,357	3,936,085	292,216	263,037	247,736
		1·71	·37	16·49	1·22	1·10	1·04
1913	6,845,018	294,815	98,155	3,983,112	246,578	198,456	237,229
		1·24	·41	16·71	1·03	0·83	1·00
1914	7,155,771	280,730	76,590	4,092,345	278,225	266,588	261,149
		1·18	·32	17·16	1·17	1·12	1·09

With regard to special diseases, cholera is much less prevalent than formerly. In 1913 and 1914 it occurred chiefly in Bengal. Small-pox mortality was generally below normal, but was exceptionally great in Madras. Plague forms the subject of a separate section. When reference is made to "fever" in India, malarial fever is generally understood, but many causes of death and many diseases much more fatal than malarial fever are included under this heading, which included 57 per cent. of the mortality in 1914. The fever death-rates, as usual, varied greatly, ranging in the major provinces from 23·4 in Bengal to 7·7 in Madras and Burma. The malaria

section of the Indian Research Fund Association is housed at Kasauli, but has a field-laboratory in Delhi where classes are held. Anti-malarial operations and mosquito surveys are being carried out by special officers in practically all the provinces. The measures adopted to fight malaria are the sale of quinine at cheap rates and the extirpation of mosquitos by such methods as drainage, petrolage and jungle clearing.

Plague.—The present epidemic of plague in India first broke out at Bombay in August 1896, and, as the marginal table shows, it has been responsible for a heavy mortality. In 1907 the deaths from plague attained the highest total yet recorded, viz., 1,315,892, for India as a whole. In 1908 and 1909 the mortality declined enormously. After 1910 and 1911, when there was a severe recrudescence, the virulence of the epidemic abated. Following a marked fall in 1912 and 1913, the figures again rose in 1914 and 1915.

1896–1900 -	405,644
1901–1905 -	3,954,601
1906–1910 -	2,520,506
1911 - -	846,873
1912 - -	306,488
1913 - -	217,869
1914 - -	295,760
1915 - -	432,662*

* Preliminary figure.

Plague is so local in its visitations that all general and unanalysed statistics are likely to prove misleading. Many parts of India (including Assam, Burma, the N.W. Frontier Province, and Coorg) have suffered but little from its ravages, and in the greater part of the country the outbreaks cannot be described as having been severe or disastrous. On the other hand, general statistics tend to conceal the severity of the distress caused by the disease in particular districts. The Punjab, United Provinces and Bombay have had by far the highest mortality.

Vaccination.—The total number of vaccinations performed among the civil population during 1914–15 was 9,462,901, being a decrease of 414,185 operations on the previous year's work. Of primary vaccinations 95·56 per cent., and of re-vaccinations 68·38 per cent. were successful: about 34·19 per mille of the population were successfully vaccinated. The number of infants under a year old successfully vaccinated was 44·89 per cent. Calf lymph is now supplied from Government vaccine depôts.

Sanitation.

General.—The reorganisation and enlargement of the Sanitary Department proceeds apace. Every major province has its sanitary commissioner, and (except for the N.W. Frontier Province) its sanitary engineer. In addition there were in May 1914, 26 deputy sanitary commissioners, 16 deputy or assistant sanitary engineers, and nearly 150 health officers. In May 1914 the Government of India issued a comprehensive resolution on Indian sanitary policy.* The following paragraphs give some account of the chief sanitary works undertaken in the various provinces in 1914–5 :—

Delhi.—Special Government grants amounting to £13,330 were made for anti-malarial and other schemes of sanitary improvement. The water-supply and conservancy arrangements were much improved.

Bengal.—Of the total income in 1914–15 over 40 per cent. was spent on sanitary works, mainly on water supply and drainage. In Calcutta the Water Supply Committee are trying to prevent waste and to ensure a continuous high pressure supply. The Canal area drainage works were completed at a total cost of about £300,000.

Assam.—Government made substantial grants for water-supply projects and drainage and conservancy schemes. Schemes for the improvement of the rural water supply have been formulated.

Bihar and Orissa.—The chief feature of the year was the employment of a larger number of trained municipal health officers and sanitary inspectors. Sketch water supply and sewage schemes have been prepared.

United Provinces.—The special boring division has achieved much success with tube well experiments, the most important sanitary engineering work now in progress. A Government grant of £6,700 was made for an experimental sullage farm at Lucknow, and a further grant of £6,700 for anti-malarial projects.

Punjab.—The year was one of special activity, and the annual Government grant was considerably enhanced to meet the increased demands made on the Sanitary Board. Enlarged powers of sanctioning projects have been delegated to the Board. Training classes for sanitary inspectors have been established.

* Presented to Parliament in 1914 (Cd. 7540).

(Sanitation.)

North-West Frontier Province.—Large Government grants were made to Abbottabad, Peshawar, Bannu and Dera Ismail Khan. The grant to Peshawar for drainage and water supply schemes amounts to £33,330, spread over three years.

Central Provinces and Berar.—Substantial provincial contributions were made towards water, drainage, and town improvement schemes.

Madras.—Provincial grants amounting to about £200,000 were made to local bodies for sanitary works. The quantity and quality of the conservancy plant are inadequate in most municipalities. Improvement in conservancy in rural areas continued. Several waterworks were under construction.

In Madras City over £64,000 was expended on drainage and water works.

Bombay.—Progress was made with the appointment of health officers and sanitary inspectors. Grants were made for the improvement of village water supplies.

In Bombay City the sanitary inspection has been improved and the cleansing of the city has been more strictly supervised. Many insanitary houses have been demolished, but a number of insanitary areas need to be cleared.

Burma.—A note was prepared containing suggestions to aid local authorities in laying out urban areas. The question of improving congested urban areas and demolishing insanitary premises was also considered. The provision of a protected water supply to smaller towns has been actively undertaken.

Medical Institutions.

Hospitals, Dispensaries, &c.—In 1914 the number of aided civil hospitals and dispensaries was 2,841 as against 2,820 in 1913. The number of in-patients increased to 531,723 and of out-patients to 31,213,489, and the number of operations rose to 1,284,825. There were also 847 State-special and railway hospitals with a total of 2,672,433 patients and 710 private non-aided institutions with 5,109,274 patients.

Travelling dispensaries are employed in some provinces. The Bengal Nursing Association has begun to train Indian women as nurses in Mofussil hospitals. A similar scheme was under trial in Burma. In the United Provinces the system of charging fees to well-to-do patients was introduced with success.

Medical Colleges.—There are five medical colleges (Bombay, Madras, Calcutta, Lahore, and Lucknow), the students in which numbered in 1914, 2,311, including 106 women. There are also 15 medical schools, the students in which numbered 2,487. There is an X-ray institution at Dehra Dun where a class of instruction was attended by 20 students. Branch installations opened at Delhi and Simla are obtaining a large number of patients.

Pasteur Institutes.—There were Pasteur Institutes for anti-rabic treatment at Kasauli (Punjab) and Coonoor (Madras). The number of patients treated in the former increased to 4,585, the corresponding figure for Coonoor being 1,210. A Pasteur Institute was opened at Rangoon in July 1915.

Lunatic Asylums.—The treatment of lunatics at asylums prevails on only a small scale in India, where insanity is less prevalent than in European countries. The number of asylums in 1914 was 21. The number of patients admitted was 2,083, as against 2,327 in 1913. The total asylum population of the year was 8,452. There is a steady increase in the number of females admitted to the Punjab asylum.

Leper Asylums.—There are many leper asylums, among which may be mentioned the Madras Government Leper Asylum, the Matunga Leper Home, Bombay, the Trivandrum State Leper Asylum, and the Calcutta Leper Asylum. There are also many asylums or homes, frequently under some sort of Government supervision, including about 50 asylums of the Mission to Lepers.

Emigration.

(*For further details see Statistical Abstract for British India, Tables* 194 *and* 195.)

Emigration from India, so far as it is brought under the cognizance of Government, is mainly regulated by Act XVII. of 1908 and the Rules issued under its provisions. Emigration to Ceylon, to the Straits Settlements, and for employment under Government only in British East Africa and Central Africa is, however, excepted from the restrictions of the Act. By this Act, natives of India are permitted to emigrate, under contract to labour for hire, only to such countries as have satisfied the Government of India that sufficient provision is made in them for the protection of Indian immigrants; and a similar protection is extended to natives of India engaged to emigrate, individually

or in small parties, to work as artisans, entertainers, servants, &c. Emigration, otherwise than under contract to labour or work in one of the above capacities, is not controlled by legislation. Emigration under the Act is now confined to certain British possessions, chiefly in the West Indies, and to Surinam.

On 20th March 1916 the Governor-General announced in the Legislative Council the acceptance of a policy for the eventual abolition of the system of indentured emigration. In the interim certain transitional arrangements affecting relations with the Colonies are to be worked out.

Calcutta.—Emigration was suspended on the outbreak of war as ships were required by Government for transport purposes. There were four emigration agencies at work during 1914 at Calcutta, three for British colonies and one for Surinam, a Dutch colony. Only 2,588 adults were despatched out of 5,132 requisitioned, Fiji and Surinam obtaining a high, and British Guiana and Trinidad a low, proportion of their demands. Only 643 licences were issued to recruiters and 35 were cancelled. Nearly 87 per cent. of the emigrants came from the United Provinces. About 5½ per cent. of those shipped were returned emigrants. The number of emigrants who returned from the several colonies was 2,961, of whom 843 brought aggregate savings amounting to about £30,000.

Madras.—The number of indentured emigrants was 854, as against 2,266 in 1913. Emigration confined to Fiji and British Guiana was suspended after July 1914. 1,662 emigrants returned from Natal, 155 from Mauritius and 287 from Fiji.

As regards non-regulated emigration, the number of passengers to the Straits Settlements fell from 117,783 to 49,028 owing chiefly to the war. Passages to Ceylon fell from 190,059 to 144,146. Emigration to Burma also decreased.

Bombay.—The number of emigrants rose from 258 to 315. Of these, 196 went to British East Africa and 103 to Persia. From Karachi 66 emigrants left for Uganda and 206 for Persia. A large number of other emigrants returned to South Africa.

Migration.

Assam.—The most important feature of the year was the enactment of the Assam Labour and Emigration (Amendment) Act (VIII of 1915), under which the system of recruitment by licensed contractors was abolished, and the Assam Labour Board was constituted for the supervision of the local agents and of the recruitment, engagement, and emigration to the labour districts of Assam of natives of India. Penal contracts under the Act of 1901 have now been abolished throughout the Assam tea districts. The total labour population at the end of March 1915 was 879,330, representing an increase of 32,763 on the figures for the preceding year. There was a further decline in the number of "Act" labourers, who at the end of the year numbered 8,181, or only 1½ per cent. of the total adult labourers. The number of immigrants was 63,638, as against 58,869 in 1913–14. Time-expired coolies hold 213,850 acres of land direct from Government.

Prices.

(*For further details see Statistical Abstract for British India, Tables* 206 *to* 211.)

The marginal table of prices during the seven years to 1914 has been compiled from Government returns showing the index numbers of the prices of: (*a*) 11 articles imported; (*b*) 28 articles consumed in India or exported; (*c*) food-grains. The prices under (*a*) and (*b*) are wholesale, and under (*c*) retail. The index number of each year represents a simple average of the separate price ratios of the selected articles. In showing the variations the prices of 1873 are taken as 100. Prices were high in 1908 owing to the widespread failure of crops in Northern India. In 1909 and 1910 there was a general decline and foodstuffs continued to fall till 1911. During 1912–13 the price of agricultural produce showed a general tendency to rise, and this tendency continued on the whole in 1913–14. In 1914–15, before the outbreak of war, prices of cereals, pulses and oilseeds (except linseed) were on the whole higher than in 1913–14; while raw cotton and jute prices were

Year.	Index Number for Articles imported.	Index Number for Articles consumed or exported.	Index Number for Food-grains (Retail Prices).
1873 - -	100	100	100
1908 - -	106	151	231
1909 - -	99	133	195
1910 - -	109	127	168
1911 - -	113	136	161
1912 - -	117	145	189
1913 - -	117	154	199
1914 - -	114	160	222

(Prices.)

lower. The restriction of exports due to the outbreak of war which curtailed or stopped demand in European markets led to a general fall in Indian staples, such as oilseeds, raw jute and raw cotton. Jute prices fell much below the cost of production in Bengal. In Bihar and Orissa prices of staple food-grains were higher, and in Assam paddy prices were high owing to bad crops. In the United Provinces prices of food-grains were high, largely because scarcity in 1913–14 had caused a depletion of stocks, but cotton, oilseeds, and hemp realised poor prices. In the Punjab wheat, jowar, bajra, and sugar rose in price, but raw cotton fell heavily and rapeseed showed a severe shrinkage. In the N.W. Frontier Province prices of staple food-grains were high. In the Central Provinces and Berar high prices were realised for wheat, but cotton prices fell considerably. In Burma paddy prices fell on the outbreak of war, but afterwards rose. With some exceptions the prices of food-grains in Madras were at or below the level of the previous year. In Bombay prices of cotton and oilseeds fell heavily but wheat prices rose owing to the war.

Wages.

(*For further details see Statistical Abstract for British India, Tables* 204 *and* 205.)

Quinquennial wage-censuses have been established for the different provinces, and the results of the first of these censuses, taken in 1911, were summarised in the Moral and Material Progress Report for 1912–13. The general tendency in most provinces is for wages to rise gradually in response to the gradual economic development of the country and the consequent demand for labour.

The outbreak of war did not seriously affect employment. In Bengal in 1914–15 agricultural wages suffered from the low jute prices and the poor paddy crop. Wages in Bihar and Orissa were generally maintained. There was some migration to Assam and Calcutta. Wages showed no decline in the United Provinces, where there was an ample demand for labour. In the Punjab there was a shortage of labour and wages continued to rise. In the Central Provinces and Berar agricultural labourers had ample work and got fairly high wages. In Bombay and Burma scarcity of labour continued, and wages showed no tendency to decline.

Famine or Scarcity.

Bihar and Orissa.—There was failure of crops in a part of the Santal Parganas and relief works were opened.

Central Provinces.—The relief works opened in the previous year were closed by the end of August 1914.

General Remarks.

Bengal.—The inferior paddy crop and the outbreak of war, which caused a sudden fall in jute prices, adversely affected the ryots. Insufficient rainfall caused injury to the winter rice in Eastern Bengal.

Bihar and Orissa.—The year was unusually free from damage by floods. The condition of agriculturists was not very prosperous.

Assam.—Floods did considerable damage in the Surma Valley, but in the Assam Valley the condition of the cultivators was on the whole fair.

United Provinces.—The year was one of recovery from the famine of 1913–14 and there was little sign of deterioration. The agriculturists suffered from the fall in prices following the outbreak of war, but the labouring classes were little affected.

Punjab.—On the whole the prosperity of the agricultural population was well maintained.

North-West Frontier Province.—The high prices of staple food-grains caused distress among the poorer classes though no set-back occurred in the generally advancing prosperity of the agricultural population.

Central Provinces and Berar.—Crops were disappointing and the prices of cotton were low owing to the war, but the condition of the cultivators and labourers was satisfactory.

Burma.—Indifferent crops and comparatively low prices adversely affected the cultivators.

Madras.—The season was not altogether favourable, but the agricultural classes stood the strain of a difficult year surprisingly well.

Bombay.—The agricultural season was, generally speaking, good, but there were violent fluctuations in the prices of articles affected by the war.

CHAPTER XVII.—ARMY AND MARINE.

(*For further details see Statistical Abstract for British India, Tables* 45 *to* 47, 70 *and* 185 *to* 193.)

Army.

The established strength of the European and Indian armies in India for 1914–15 (exclusive of Indian artificers and followers), was: European army, 2,384 officers and 72,561 warrant and non-commissioned officers and privates; Indian army, 3,104 European officers and non-commissioned officers and 160,245 native commissioned and non-commissioned officers and privates, or a total establishment of 238,294.

During 1914–15 the army of India was engaged in operations of war in France and Belgium, West Africa, East Africa, Egypt, Somaliland, Aden, Mesopotamia, Persia, China, and on the North-west frontier of India.

The net expenditure on the army in 1914–15 was £16,108,952 for effective charges and £3,131,416 for non-effective charges, or £19,240,368 in all, as against £18,585,733 in 1913–14. In addition, £915,689 (net) was spent on military works and £13,603 on special defences.

The expenditure covered the full ordinary maintenance cost of the troops, &c., employed with the overseas Indian Expeditionary Forces, as, in accordance with parliamentary resolutions, Indian revenues continue to bear ordinary pay and other charges of these troops.

Health of the British and Indian Armies.—The following table shows the sickness and mortality of the British and Indian troops (excluding officers) in India. During 1914 the death-rate of the British troops in India was considerably higher than that of 1913, which was the lowest on record. There was also a rise in the admission rate. For the Indian troops both death-rate and admission rate were higher than those for 1913, which were the lowest on record.

	Ratio per Mille of Strength.					
	British Troops.			Indian Troops.		
	Average 1908–12.	1913.	1914.	Average 1908–12.	1913.	1914.
Admissions into hospital -	638·4	580·5	614·1	578·3	531·7	566·5
Constantly sick - - -	60·3	29·7	31·8	20·9	21·4	20·9
Deaths - - - -	6·1	3·3	4·3	5·4	4·0	4·2

Among European troops malaria continued to be one of the chief causes of inefficiency. It accounted for 163 per 1000 admissions. Pneumonia and heat-stroke were the chief causes of death. Anti-enteric inoculation makes satisfactory progress, and 94 per cent. of European troops in India have been inoculated. Among Indian troops malaria was the chief cause of sickness and pneumonia of mortality.

Marine.

The net expenditure on marine services amounted to £265,255 in 1914–15 as against £423,303 in 1913–14. In this amount are included the cost of the Royal Indian Marine and the annual contribution of about £100,000 towards the expenses of His Majesty's ships employed in the Indian seas.

On the 31st March 1915 the Royal Indian Marine consisted of three troopships and seven other sea-going vessels, three inland vessels, three flats, and a number of small steamers, launches, &c. There was an establishment of about 2,130 officers and men.

CHAPTER XVIII.—FRONTIERS AND NATIVE STATES.

Among the offers of assistance and support which were received from the Indian Empire on the declaration of war in August 1914, those of the Native States made a profound impression. They were reported in the following telegrams from the Viceroy, dated the 8th and 21st September.

"Following is a summary of offers of service, money, &c., made in India to the Viceroy. The Rulers of the Native States in India, who number nearly seven hundred in all, have with one accord rallied to the defence of the Empire and offered their personal services and the resources of their States for the war. From among the many princes and nobles who have volunteered for active service, the Viceroy has selected the chiefs of Jodhpur, Bikaner, Kishangarh, Rutlam, Sachin and Patiala, Sir Pertab Singh, Regent of Jodhpur, the Heir Apparent of Bhopal and a brother of the Maharaja of Cooch Behar, together with other cadets of noble families. The veteran Sir Pertab would not be denied his right to serve the King-Emperor in spite of his seventy years, and his nephew, the Maharaja, who is but sixteen years old, goes with him.

"All these have, with the Commander-in-Chief's approval, already joined the Expeditionary Forces. The Maharaja of Gwalior and the chiefs of Jaora and Dholpur, together with the Heir Apparent of Palanpur, were, to their great regret, prevented from leaving their States. Twenty-seven of the larger States in India maintain Imperial Service troops, and the services of every corps were immediately placed at the disposal of the Government of India on the outbreak of war. The Viceroy has accepted from twelve States contingents of cavalry, infantry, sappers and transport, besides a camel corps from Bikaner, and most of them have already embarked.

"As particular instances of generosity and eager loyalty of the chiefs the following may be quoted: Various durbars have combined together to provide a hospital ship, to be called 'The Loyalty,' for the use of the Expeditionary Forces. The Maharaja of Mysore has placed Rs. 50 lakhs at the disposal of the Government of India for expenditure in connection with the Expeditionary Force. The Chief of Gwalior, in addition to sharing in the expenses of the hospital ship, the idea of which originated with himself and the Begum of Bhopal, has offered to place large sums of money at the disposal of the Government of India and to provide thousands of horses as remounts. From Loharu in the Punjab and Las Bela and Kalat in Baluchistan come offers of camels with drivers, to be supplied and maintained by the chiefs and sardars. Several chiefs have offered to raise additional troops for military service should they be required, and donations to the Indian Relief Fund have poured in from all States. The Maharaja of Rewa has offered his troops, his treasury, and even his private jewellery for the service of the King-Emperor. In addition to contributions to the Indian Fund some chiefs, namely, those of Kashmir, Bundi, Orchha and Gwalior and Indore, have also given large sums to the Prince of Wales' Fund.

"The Maharaja of Kashmir, not content with subscribing himself to the Indian Fund, presided at a meeting of 20,000 people held recently at Srinagar and delivered a stirring speech, in response to which large subscriptions were collected.

"Maharaja Holkar offers, free of charge, all horses in his State Army which may be suitable for Government purposes. Horses also offered by Nizam's Government, by Jamnagar and other Bombay States. Every chief in the Bombay Presidency has placed the resources of his State at the disposal of Government, and all have made contributions to the Relief Fund.

"Loyal messages and offers also received from Mehtar of Chitral and tribes of Khyber Agency as well as Khyber Rifles.

"Letters have been received from the most remote States in India, all marked by deep sincerity of desire to render some assistance, however humble, to the British Government in its hour of need.

"Last, but not least, from beyond the borders of India have been received generous offers of assistance from the Nepal Durbar; the military resources of the State have been placed at the disposal of the British Government, and the Prime Minister has offered a sum of £20,000 to the Viceroy for the purchase of machine guns or field equipment for British Gurkha Regiments proceeding overseas, in addition to large donations from his private purse to the Prince of Wales' Fund and the Imperial Indian Relief Fund. To the 4th Gurkha Rifles, of which the Prime Minister is honorary

colonel, the Prime Minister has offered £2,000 for the purchase of machine guns in the event of their going on service.

"The Dalai Lama of Tibet has offered 1,000 Tibetan troops for service under the British Government. His Holiness also states that Lamas innumerable throughout length and breadth of Tibet are offering prayers for success of British Army and for happiness of souls of all victims of war."

"H.H. the Maharaja of Idar has been selected for active service.

"Further contingents of Imperial Service troops have been accepted from three States, making 15 States in all, namely:—Alwar, Bharatpur, Bikaner, Faridkot, Gwalior, Hyderabad, Indore, Jaipur, Jind, Jodhpur, Kapurthala, Kashmir, Mysore, Patiala and Rampur.

"Imperial Service contingents from Bahawalpur, Bhavnagar, Bhopal, Idar, Junagadh, Khairpur, Maler Kotla, Navanagar, Sirmur and Tehri will be accepted later if need arises.

"A joint offer from Dhar, Barwani, Ali Rajpur and Jhabua, who maintain no Imperial Service troops, is under consideration.

"H.H. the Maharaja of Gwalior has also given £22,000 for motor-cars and transport, and £5,000 for relief of Belgian sufferers. T.H. the Raja and Rani of Dhar have contributed to H.R.H. the Prince of Wales's Fund.

"Offers of horses have been made by the chiefs of Baroda, Bhopal, Dhar, Jodhpur, Mysore, Patiala, Rewa.

"Loyal offers of service have been received from the tribes of Kurram and the Swat Valley and from the Sam Ranizai, who are ready to raise corps of Frontier Tribesmen if desired.

"Offers have also been received from the Feudatory States of Amb, from the Bhutan Maharaja, and from the Arab chiefs in the Aden hinterland."

Many further offers, including a contribution of £400,000 from the Nizam of Hyderabad, were made in the course of the year.

Baluchistan.—All other events were overshadowed by the war. The prompt declaration of unswerving loyalty made by the Khan of Kalat and the Jam of Las Bela, and the proffer of their persons and resources in the service of the Empire, awoke a sympathetic echo in every direction; and the fact that the year's history was an undramatic record of peace, broken only by such occasional disturbances as are incident to the frontier, speaks eloquently for the loyalty of the Pathan, Baloch and Brahui tribesmen, and for the success of the principles of administration peculiar to Baluchistan. In the Kalat and Las Bela States satisfactory progress was made in the policy of reform and development, and the finances have now been placed on a permanent basis. With one unimportant exception the attitude of the chiefs was excellent.

The war had little disturbing influence on the Afghan border, thanks largely, no doubt, to the strict attitude of neutrality enjoined by the Amir on his Governors. In the late winter a series of raids on the Quetta and Chagai borders were brought to an abrupt close by the repressive measures taken. On the Persian border the chronic unrest culminated in November in a tribal raid, which caused much damage.

The district levies continue to do good service, and as their pay had remained unchanged since their institution 30 years ago, a substantial increase was decided upon, and was announced shortly after the close of the year. The jirgas, or councils of elders, who are no less important than the levy service as a factor in Baluchistan self-government, did excellent work. Out of a total of over 6,000 cases considered by them, only 12 of their awards were reversed on revision by the British authorities.

North-West Frontier Province.—On the outbreak of war promises of service and expressions of loyalty were, however, evoked on all sides. The enthusiasm spread even to the tribal tracts administered by Government, and offers of service were made by the militias, the Khyber tribe offered to furnish an armed contingent, and the Bannu Wazirs subscribed their Tochi allowances for one month towards the Imperial Indian Relief Fund. The greatest concern was nevertheless exhibited with regard to the attitude of the Turks, and it is a strong testimony to the innate loyalty of the residents of the cis-frontier area of the province that the outbreak of war with the Porte called forth fresh expressions of allegiance to the British Government and of condemnation of the step taken by Turkey. The cordial expression of neutrality made by the Amir of Afghanistan at the end of August was of material value at

this crisis. Across the border it could hardly be expected that the war with Turkey would not furnish a text for harangues inciting to *jehad*. Combination among the tribes was not expected, but isolated acts of hostility were reported from time to time.

The Mahsud situation was unsatisfactory throughout the year. A series of raids and outrages took place, commencing with the murder of Major Dodd, C.I.E., and two other British officers in April 1914. A critical time succeeded, as the whole tribe were excited at the prospect of condign punishment for the outrage. Their attitude subsequently became more reasonable, but although terms were offered to them in May, the year passed without the tender of satisfaction to Government.

The position in Khost on the outbreak of war was that the tribes were openly defying the Amir's authority, and at the same time cherishing a grudge against the British Government for loss suffered during their exclusion from British territory. The only result, however, of three organised attacks made between November and March was to involve the tribes in heavy losses; and their decisive defeat put an end to further trouble from this direction.

In the Khyber Agency, where the behaviour of the clans was uniformly good, the two most important events were the duplication of the Khyber road and the consequent increase of the allowances of the Khyber Afridis, whose behaviour during the crisis had been excellent. The prompt and liberal way in which Government met their representation of their case greatly impressed the tribe, and should have a lasting effect on British relations with the Afridis.

The attitude of the Khans and chiefs of the Malakand Agency, particularly the Mehtar of Chitral, left nothing to be desired. The transfer of the Mastuj and Laspur districts from Kashmir to the Mehtar's administration caused him much gratification. The completion of the Upper Swat River Canal, and its opening at the beginning of the year, served to consolidate the position of Government in the eyes of the people and to assure them of its solicitude in developing the country's resources to their advantage.

The militias, including the Khyber Rifles, Kurram Militia, and North and South Waziristan Militia, maintained their high reputation for discipline and efficiency. On several occasions the Kurram Militia took part in the repulse or pursuit of raiders. The behaviour of the North Waziristan Militia in the three important engagements with the invading forces from Khost was most praiseworthy. The strength of this force has been increased by 400 men.

Assam Border Tribes.—During the year the southern boundaries of the Eastern, Central and Western sections of the N.E. Frontier, as well as those of the new Lakhimpur Frontier Tract, were formally notified, and rules for the administration of these tracts were issued.

Burma.—In the Northern and Southern Shan States the war caused no excitement, and the *Sawbuas* gave practical and spontaneous proof of loyalty by contributing immediately to the various war funds. A notable feature of the year was the opening of the Southern Shan States Railway. In Karenni the States were well administered, and the border between Siam and Karenni was peaceful. But the complete collapse at the outbreak of the war of the timber trade, on which the country is practically dependent, dealt a heavy blow to the States' prosperity.

Disturbances arose in the Somra Tract of the Chin Hills on the death of Komyang, a chief who had maintained good order. Prompt measures were taken and the unrest subsided. Elsewhere peace prevailed in both the administered and the unadministered area, and an excellent spirit of loyalty was displayed in connection with the war.

On the north-eastern frontier, the administration of the new Putao district, which was constituted during the year, began to take shape. Tribute was collected, the construction of roads pushed on, and a large number of appointment orders issued to headmen.

Kashmir.—Owing to the war, the prevalence of epidemics, chiefly cholera, and a severe winter, trade was depressed, and the revenue decreased. The year was disastrous for the silk trade. In the Forest Department the revenue results, following upon an extension of the forest area, were exceptionally good.

Sikkim.—The new Maharaja, who was installed shortly before the close of the year, assumed charge of certain departments, being assisted by a European adviser. On the outbreak of war the resources of the State were placed at the disposal of Government, and many Sikkimese have been fighting at the front. The financial condition of the State was sound. During the year a chief court was created.

Hyderabad.—The year 1914 was exceptionally prosperous; crops were good, trade was brisk and the revenue returns were eminently satisfactory. Great progress was made with useful public works.

Mysore.—There was a large outlay on public works, chiefly in connection with irrigation and railway construction. Considerable activity was shown by the Education Department.

Baroda.—The year 1913–14 was prosperous; numerous public works were in progress or completed; 47 miles of railway were opened for traffic and 120 miles were under construction. Education continued to make progress. A scheme of police reorganisation was sanctioned. The Maharaja spent over six months of the year in Europe.

Rajputana.—In 1913–14 the harvests were good, except in Tonk, where famine conditions existed in two districts, and advances had to be made to the cultivators to enable them to tide over their difficulties. In Jaipur education made steady progress. The Maharawal of Banswara was invested with ruling powers. In 1914–15 the harvests were generally favourable, though there was some scarcity in Alwar.

A successor to the late Chief of Jaisalmer was installed. The young Maharaja of Bharatpur returned after an absence of nine months in England, and continued his studies at the Mayo College, Ajmer.

Central India.—Agriculture prospered during 1914–15, but there was some scarcity in the early part of the year in Bundelkhand and Baghelkhand. Crime was more prevalent in consequence. A scheme for the improvement of education in the administered areas was sanctioned by Government.

Bengal.—In Cooch Behar the year was unfavourable; the State suffered economically from the war, crops were poor and malarial sickness increased. Financial equilibrium was, however, maintained by a reduction in expenditure, and educational progress was unchecked.

Hill Tippera was likewise affected by the war, but expenditure on education was slightly increased, and the school attendance showed improvement.

Bihar and Orissa.—In the Tributary and Feudatory States of Orissa the year's income showed a general advance. More was spent on public works and on education, and the number of schools and pupils increased.

Assam.—On the outbreak of war wild rumours gained some credence in the Manipur State, but they were promptly dissipated and all fears allayed. The agitation against the *pothang* taxes entirely disappeared.

Punjab Native States.—The Maharaja of Patiala, whose offer of personal service in the war had been accepted, was taken ill on his way to Europe and compelled to return to India. The Nawab of Bahawalpur, a minor, returned from England in December, and entered the Aitchison Chiefs' College at Lahore. It was found necessary to abolish the Council of Regency in Faridkot, and to administer the State through a superintendent. The Raja of Bashahr died in August and was succeeded by his adopted son.

Bombay.—The chiefs one and all placed their resources at the disposal of Government, and several of them were permitted to go to the front. The season was generally good, except in a few States where the kharif crops were poor. The public health was good on the whole, but in certain States there were outbreaks of plague and cholera. Education continued to advance slowly, and the number of attendances increased in almost every State.

Madras.—In Travancore the Legislative Council passed a regulation to control labour in factories. There was an increase both in school attendance and in expenditure on education. In Cochin the year was normal.

The Raja of Pudukkottai spent four months in his State, and left for Australia in February 1915. The revenues of the State improved, but fell short of the expenditure by over £14,000. There was much sickness during the year.

Banganapalle did not enjoy a prosperous year, and the expenditure exceeded the receipts. The crops suffered through inadequate rainfall both here and in the Sandur State.

APPENDIX.

LIST OF INDIAN OFFICIAL REPORTS, &c.

(MOSTLY ANNUAL.)

General.

Statistical Abstract relating to British India (Parliamentary Paper).
Statistics of British India:—
Vol. I.—Commercial.
Vol. II.—Financial.
Vol. III.—Public Health.
Vol. IV.—Administrative and Judicial.
Vol. V.—Educational.
Census Reports (Decennial), India, Provincial, and Native States.
Administration Reports: Madras, Bombay, United Provinces, Punjab, Bengal, Central Provinces and Berar, Burma, Bihar and Orissa, Assam, North-West Frontier Province, Delhi, Coorg, Andaman and Nicobar Islands, Civil and Military Station of Bangalore, Ajmer-Merwara, Baluchistan Agency.

Legislation.

Acts of the Imperial and Provincial Legislative Councils.

Justice and Police.

Report on the Administration of Civil Justice for each Province.
Report on the Administration of Criminal Justice for each Province.
Report on Jails for each Province.
Reports on Police for each Province, and for Bombay Town and Island, Calcutta, and Rangoon.

Finance.

Finance and Revenue Accounts of the Government of India.
East India Financial Statement (Parliamentary Paper).
Return of Net Income and Expenditure for eleven years (Parliamentary Paper).
Accounts and Estimates: Explanatory Memorandum (Parliamentary Paper).
Home Accounts (Parliamentary Paper).
Loans raised in England (Half-yearly Parliamentary Paper).
Loans raised in India (Half-yearly Parliamentary Paper).
Mint Reports for Calcutta and Bombay.
Paper Currency Department Reports, India and Bombay.
Statistics compiled from the Finance and Revenue Accounts.

Land Revenue, &c.

Land Revenue Administration: Provincial Reports for Lower Provinces (Bengal), Bihar and Orissa, Assam, United Provinces, Bombay Presidency (including Sind), Punjab, Central Provinces and Berar, Burma, and Madras.
Report on Land Revenue Administration, Land Records, Settlement Operations, Alienation of Land Act, &c. for North-West Frontier Province.
Madras Survey, Settlement and Land Records Department Report.
Reports of Land Records Departments for Bombay, Burma, Bengal, United Provinces, and Punjab.
Report on Settlement Operations, Punjab.
Reports on Survey and Settlement Operations, Bengal, Bihar and Orissa, and Assam.
Reports on Operations of the Land Records and Settlement Departments, Central Provinces and Berar.
Report of the Talukdari Settlement Officer, Bombay.
Provincial Reports on the Administration of Estates under the Court of Wards.
Report on the Punjab Canal Colonies.

Separate Revenue (Salt, Excise, &c.).

Salt Department Reports: Northern India, Madras, Bombay, Sind, Bengal. Burma, Bihar and Orissa.
Excise Report for each Province.
Report on the Operations of the Opium Department.
Stamp Department Report for each Province.
Registration Department Report for each Province.
Income Tax Report for each Province.

Agriculture and Veterinary.

Report on the Progress of Agriculture in India.
Report of the Agricultural Research Institute and College, Pusa.
Bulletins of the Agricultural Research Institute, Pusa, and of the Provincial Departments of Agriculture.
Memoirs of the Department of Agriculture.
Proceedings of the Board of Agriculture.
Agricultural Journal of India (quarterly).
Reports of the Department of Agriculture for each Province.
Reports on Agricultural Stations, Experimental Farms, and Botanic Gardens for each Province.
Season and Crop Report for each Province.
Agricultural Statistics of India.
Area and Yield of certain Principal Crops.
Report on Production of Tea in India.
Report on Tea Culture in Assam.
Reports of the Civil Veterinary Departments for each Province.
Statistics compiled from the Reports of the Provincial Civil Veterinary Departments.
Report of the Camel Specialist.
Report of the Imperial Bacteriologist (Veterinary).

Co-operative Societies.

Statements showing Progress of the Co-operative Movement in India.
Reports on Co-operative Societies for each Province.
Reports of Conferences of Registrars of Co-operative Societies, India and Provincial.

Forests.

Review of Forest Administration in British India.
Report on Forest Administration for each Province.
Reports of the Forest Research Institute and the Imperial Forest College, Dehra Dun.
Quinquennial Forest Review.
Indian Forest Memoirs.
Indian Forest Records.
Forest Bulletins.

Mineral Production and Inspection of Mines.

Review of Mineral Production (in Records of Geological Survey).
Report on Production of Coal in India.
Report of the Chief Inspector of Mines.

Trade and Manufactures.

Annual Statements of Sea-borne Trade and Navigation, India and Provincial (Madras, Bombay, Sind, Bengal, Bihar and Orissa, Burma).
Review of the Trade of India (Parliamentary Paper).
Tables of the Trade of India (Parliamentary Paper).
Provincial Reports on Maritime Trade and Customs (including working of Merchandise Marks Act) for Bengal, Bihar and Orissa, Bombay, Sind, Madras, and Burma.
Accounts of Sea-borne Trade (monthly and for calendar year).
Accounts of Land Trade (monthly).
Annual Statement of Coasting Trade of British India.
Report on the Trade and Navigation of Aden.
Accounts of Trade carried by Rail and River in India.
Report on Inland, Rail-borne, or Rail-and-River-borne Trade for each Province.
External Land Trade Reports for Bengal, Bihar and Orissa, Assam, Burma, United Provinces, Punjab, North-West Frontier Province, Sind, and British Baluchistan.
Indian Trade Journal (weekly).
List of Joint-Stock Companies in British India.
Report on the working of the Indian Companies Act for each Province.
Report on the working of the Indian Factories Act for each Province.
Report of the Chief Inspector of Explosives.

Public Works.

Administration Report on Railways.
Reports on Public Works (Buildings and Roads) for Madras, Bombay, Punjab, North-West Frontier Province, and Burma.
Review of Irrigation.
Report on Irrigation Revenue for each Province (except Madras).
Administrative Reports on Irrigation, Madras and Bombay.
Report on Architectural Work in India.

Posts and Telegraphs.

Report on the Posts and Telegraphs of India.
Report of Indo-European Telegraph Department.

Scientific Departments.

Report on the Operations of the Survey of India.
Records of the Survey of India.
Records and Memoirs of the Geological Survey of India.
Report of the Indian Meteorological Department.
Indian Weather Review, Annual Summary.
Rainfall of India.
Memoirs of the Indian Meteorological Department.
Report of the Meteorologist, Calcutta.
Report of the Director-General of Observatories.
Memoirs and Bulletins of the Kodaikanal Observatory.
Report of the Board of Scientific Advice.
Report of the Archæological Survey of India, and Provincial Reports.
Report and Records of the Botanical Survey.

Education.

Education Reports for India and each Province.
Quinquennial Review of Education (Parliamentary Paper).

Local Self-Government.

Reports on Municipalities for each Province and for Calcutta, Bombay City, Madras City, and Rangoon.
Reports on District and Local Boards or Local Funds for each Province.
Reports of Port Trusts of Calcutta, Bombay, Madras, Rangoon, Karachi, and Aden.

Medical, Sanitary, and Vital Statistics.

Report of the Sanitary Commissioner with the Government of India.
Report on Sanitary Measures in India (Parliamentary Paper).
Report of the Sanitary Commissioner for each Province.
Vaccination Report for each Province.
Report on Civil Hospitals and Dispensaries for each Province.
Report on Lunatic Asylums for each Province.
Report of the Chemical Examiner and Bacteriologist for each Province.
Scientific Memoirs by Officers of the Medical and Sanitary Departments.
Reports of the All-India Sanitary Conferences.
Reports of the Imperial Malaria Conferences.
Indian Journal of Medical Research (Quarterly).

Emigration and Immigration.

Calcutta Port Emigration Report.
Bengal Inland Emigration Report.
Assam Immigration Report.

Prices and Wages.

Prices and Wages in India.
Variations in Indian Price Levels.
Reports of Provincial Wage Censuses.

EAST INDIA (PROGRESS AND CONDITION).

STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION

OF

INDIA

DURING THE YEAR 1915-16.

FIFTY-SECOND NUMBER.

(Presented pursuant to Act 5 & 6 Geo. V. c. 61, s. 26.)

India Office,
14 *August* 1917.

T. W. HOLDERNESS,
Under Secretary of State for India.

Ordered, by The House of Commons, *to be Printed,*
16 *August* 1917.

LONDON:
PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE.

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1917.
Price 9d. Net.

136

PREFACE.

THE Statement exhibiting the Moral and Material Progress and Condition of India is presented to Parliament in accordance with the requirements of the 26th section of the Government of India Act (5 and 6 Geo. V., cap. 61), which provides as follows :—"The Secretary of State in Council shall, within the first fourteen days during which Parliament is sitting next after the first day of May in every year, lay before both Houses of Parliament an account for the financial year preceding that last completed of the annual produce of the revenues of India . . . The account shall be accompanied by a statement, prepared from detailed reports from each Province, in such form as best exhibits the moral and material progress and condition of India."

The Statement is prepared in the India Office from a large number of annual reports received from India. Many of these reports are compiled from information furnished by District and Political Officers, and are submitted to the Governments of the respective Provinces and to the Government of India for consideration and review before transmission to England; and some of them are not received at the India Office till about a year after the close of the period to which they refer. It is, therefore, seldom possible to present the Statement to Parliament earlier than the date mentioned in the statute, *i.e.*, about thirteen and a half months after the close of the official year.

This year, owing to the war, the arrival of many reports and returns from India has been considerably delayed.

The Statement has been greatly curtailed in accordance with the general policy of effecting economies in regard to parliamentary publications.

INDIAN CURRENCY AND WEIGHTS AND MEASURES.

Currency.—The silver rupee (containing 165 grains of fine silver and 15 grains of alloy and weighing in all 180 grains troy or 1 tola) was the sole standard of value until the 26th June 1893, when the Indian mints were closed to the unrestricted coinage of silver into rupees and it was notified that gold coin and bullion would be received at the mints in exchange for Government rupees at the rate of 7·53344 grains of fine gold for one rupee, being equivalent to a rate of exchange of 15 rupees per £1. In 1899 British gold coins were made legal tender side by side with rupees at that rate.

The Indian denominations with their British equivalents are—

Pie	= $\frac{1}{12}$ penny.
Pice (3 pies)	= 1 farthing.
Anna (12 pies)	= 1 penny.
Rupee (16 annas)	= 1*s.* 4*d.*

A lakh (lac) is 100,000 rupees and a crore is 100 lakhs.

Weights and Measures.—The weights adopted in Government transactions and by the railway companies are as follows :—

1 tola	= 180 grains	=	11·66 grams.
1 chittak (5 tolas)	= 900 „	=	58·32 „
1 ser (16 chittaks)	= $2\frac{1}{2}$ troy lb. (or $2\frac{2}{35}$ lb. avoir.)	=	933·10 „
1 maund (40 sers)	= 100 „ „ (or $82\frac{2}{7}$ „ „)	=	37·32 kgms.

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TABLE OF CONTENTS.

	PAGE
I. ADMINISTRATION AND LEGISLATION:	1–3
Administration	1
Legislation	1
II. JUSTICE AND POLICE:	3–7
Civil Justice	3
Crime and Police	3
Criminal Justice	6
Jails	7
III. FINANCE:	8–10
Form of Accounts	8
Revenue and Expenditure	8
Home Charges	8
Capital Outlay on Public Works	9
Debt	9
Currency and Exchange	9
IV. LAND REVENUE:	11–13
General	11
Tenant Right and Land Legislation	11
Revenue Surveys and Settlements and Land Records	11
Collection of the Revenue	12
V. REVENUE FROM TAXATION AND OPIUM:	14–19
Salt	14
Excise	15
Provincial Rates	18
Stamps	18
Income Tax	18
Customs	18
Registration	18
Opium	19
VI. AGRICULTURE:	20–23
Season and Crop Reports	20
Agricultural Produce	20
Co-operative Societies	21
VII. FORESTS	24
VIII. MINERAL PRODUCTION AND INSPECTION OF MINES	25
IX. MANUFACTURES:	26–27
Government and Industrial Development	26
Large Industries	26
Factory Legislation and Inspection	27
Patents and Designs	27
X. TRADE:	28–29
Foreign Seaborne Trade	28
Shipping and Freights	29
Land Frontier Trade	29
Joint Stock Companies	29
XI. PUBLIC WORKS:	30–34
General	30
Railways	30
Irrigation	31
Buildings and Roads (Civil)	33
XII. POSTS AND TELEGRAPHS:	35–36
Posts	35
Telegraphs	35
Telephones	36
Indo-European Telegraph Department	36
XIII. SCIENTIFIC DEPARTMENTS:	37–40
Board of Scientific Advice	37
Survey of India	37
Other Surveys	37
Meteorological Department	37
Agricultural Departments	38
Civil Veterinary Department	39
Archæological Department	40
Medical Research Institutes	40
Forest Research Institute	40
XIV. EDUCATION	41–45
XV. LOCAL SELF-GOVERNMENT:	46–50
General	46
Municipalities	46
District and Local Boards	48
Port Trusts	49
XVI. CONDITION OF THE PEOPLE:	51–55
Vital Statistics and Vaccination	51
Sanitation	52
Medical Institutions	53
Emigration	53
Migration	54
Prices	54
Wages	55
Famine or Scarcity	55
XVII. ARMY AND MARINE	56
XVIII. FRONTIERS AND NATIVE STATES	57–59
BIBLIOGRAPHY OF OFFICIAL REPORTS	60–62

CHAPTER I.—ADMINISTRATION AND LEGISLATION.

Administration.

The names of the holders of appointments connected with the administration of India are published annually in the *India Office List* issued by the direction of the Secretary of State for India in Council.

Public Services Commission.—The report of the Royal Commission on the Public Services in India was signed in August.

Legislation.

I. In England.

The following enactments received the Royal assent:—

The Government of India Act, 1915 (5 & 6 Geo. 5. c. 61). It was the result of many years' work, and was designed to consolidate and make more intelligible the existing law contained in a series of Acts of Parliament, dating from the year 1770, relating to the Government of India. It represents the existing law contained in those Acts and reproduces the provisions of the Acts as understood and construed by existing constitutional practice.

The Indian Civil Service (Temporary Provisions) Act, 1915 (5 & 6 Geo. 5. c. 87), authorised during the War and for two years thereafter appointments to this service without examination to the extent of three-fourths of the vacancies, subject to the advice of the Civil Service Commissioners.

II. In India.

The assent of the Governor General of India was received for the following Acts, passed respectively by the legislative councils of the Governor-General (16); of Madras (2); Bombay (7); Bengal (4); Punjab (1); United Provinces of Agra and Oudh (3); Burma (1); Bihar and Orissa (5); Assam (1); and Central Provinces (3). He made one regulation under the Government of India Act of 1870, and promulgated five ordinances under the Indian Councils Act of 1861.

Acts of the Governor-General's Council.

The Sir Jamsetjee Jejeebhoy Baronetcy Act (*No. X. of* 1915).

The Repealing and Amending Act (*No. XI. of* 1915).

The Indian Soldiers (Litigation) Act (*No. XII. of* 1915) provided for special protection in respect of litigation for Indian soldiers serving under war conditions.

The North-West Frontier Constabulary Act (*No. XIII. of* 1915).

The Enemy Trading Act (*No. XIV. of* 1915) provided facilities for certain payments, and for other matters, in connection with trading with foreigners.

The Inland Steam Vessels (Amendment) Act (*No. XV. of* 1915).

The Benares Hindu University Act (*No. XVI. of* 1915) established and incorporated a Hindu University at Benares.

The Indian Trusts (Amendment) Act (*No. I. of* 1916).

The Defence of India (Amendment) Act (*No. II. of* 1916).

The Foreigners' (Trial by Court-Martial) Act (*No. III. of* 1916).

The Indian Tariff (Amendment) Act (*No. IV. of* 1916) amended the Indian Tariff Act, 1894, and the Sea Customs Act, 1878, in order to increase revenue.

The Indian Income Tax (Amendment) Act (*No. V. of* 1916).

The Indian Ports (Amendment) Act (*No. VI. of* 1916).

The Indian Medical Degrees Act (*No. VII. of* 1916) made regulations as to titles (western medical science).

The Presidency Banks (Amendment) Act (*No. VIII. of* 1916).

The Indian Paper Currency (Temporary Amendment) Act (*No. IX. of* 1916).

Acts of the Provincial Legislative Councils.

Madras.—*The Madras Port Trust (Amendment) Act* (*No. II. of* 1915).

The Madras Outports Landing and Shipping Fees (Amendment) Act (*No. I. of* 1916).

Bombay.—*The Sind Coast-lights Act* (*No. II. of* 1915).

The Bombay Decentralization Act (*No. III. of* 1915).

The Bombay City Survey Act (*No. IV. of* 1915).

(Provincial Legislative Councils.)

The Bombay Protection of Pilgrims (Amendment) Act (No. V. of 1915).

The City of Bombay Municipal (Amendment) Act (No. I. of 1916).

The Sind Courts (Amendment) Act (No. II. of 1916).

The Bombay Medical (Amendment) Act (No. III. of 1916).

Bengal.—*The Calcutta Improvement (Amendment) Act (No. III. of* 1915).

The Bengal Embankment (Sundarbans) Act (No. IV. of 1915) repealed the Acts of 1855, 1866, and part of the Act of 1882 (*i.e.*, section 1), and extended part of the latter Act.

The Bengal Decentralization Act (No. V. of 1915).

The Bengal Smoke-Nuisances (Amendment) Act (No. I. of 1916).

Punjab.—*The Punjab Military Transport Act (No. I. of* 1916) repealed the Act of 1903 and made better provision for the impressment of animals, &c.

United Provinces.—*The Bundelkhand Alienation of Land (Amendment) Act (No. IV. of* 1915).

The Bundelkhand Encumbered Estates (Amendment) Act (No. V. of 1915).

The Pargana of Kaswar Raja Act (No. VI. of 1915), extended the United Provinces Land Revenue Act of 1901, and the Agra Tenancy Act of 1901, with certain modifications, to the Pargana of Kaswar Raja.

Burma.—*The Burma Medical Act (No. I. of* 1915) provided for the registration of medical practitioners in Burma.

Bihar and Orissa.—*The Patna Administration Act (No. I. of* 1915).

The Bihar and Orissa Excise Act (No. II. of 1915) amended and re-enacted the excise law in the province, with a view to checking traffic in cocaine.

The Bihar and Orissa Cess (Amendment) Act (No. I. of 1916) amended the Cess Act, 1880, and the Bengal Local Self-Government Act, 1885, in order to amalgamate the public works cess with the roads cess and make them over direct to District Boards and District Committees for their disposal.

The Bihar and Orissa Medical Act (No. II. of 1916) provided for the registration of medical practitioners in the province.

The Bihar and Orissa Decentralization Act (No. III. of 1916).

Assam.—*The Assam General Clauses Act (No. II. of* 1915) interpreted and shortened Assam Acts.

Central Provinces.—*The Central Provinces Excise Act (No. II. of* 1915) consolidated and amended the Excise Law in the province.

The Central Provinces Vaccination Law Amendment Act (No. III. of 1915).

The Central Provinces Slaughter of Animals Act (No. IV. of 1915).

Regulation.

The Arakan Hill District Laws Regulation (No. I. of 1916) declared and amended the law applicable in the district.

Ordinances.

The Indian Soldiers (Litigation) Ordinance (No. II. of 1915) provided for special protection in respect of litigation for Indian soldiers serving under war conditions.

The Defence of India Ordinance (No. VII. of 1915) extended the powers conferred by the Defence of India Act, 1915.

The Indian Paper Currency (Amendment) Ordinance (No. I. of 1916) temporarily amended the Act, 1910.

The Dutiable Goods and Salt Ordinance (No. II. of 1916) took power to limit or prevent the clearance of salt under certain circumstances.

The Foreigners' (Trial by Court-Martial) Ordinance (No. IV. of 1916).

CHAPTER II.—JUSTICE AND POLICE.

(For further details see Statistical Abstract for British India, Tables 24 to 42.)

Civil Justice.

There was an increase of litigation in all provinces except Bihar and Orissa, mainly in connection with money or movable property of small value.

Bengal.—There was a very large increase in the number of suits instituted in the mufassal courts, with consequent heavy arrears, in spite of substantial increase in outturn of work, and of a reduction in the number of suits pending over one year. The pending file of appeals to the Privy Council (including figures of Bihar and Orissa and Assam) rose from 186 to 249, of which 5 dated from 1912; the results of 4 were received, 2 being affirmations and 2 reversals.

Madras.—The number of suits instituted exceeded that of 1914, the highest on record, by 66,041, reaching 1 for every 75 of the population, as against 1 for every 85.

Bombay.—Institutions rose to 162,417, an increase of 473 as against an increase of 8,492 in 1914. The average duration of contested suits rose from 191 to 213 days. Appeals increased, but arrears in appeals were reduced from 7,227 to 6,885.

Sind.—Institutions rose from 27,107 to 30,520. The average duration of contested and uncontested suits in the District Courts was 373·23 and 226·49 days respectively, as against 150·74 and 96·31 in 1914.

Bihar and Orissa.—Institutions decreased by 2,026 to 163,529, but disposals fell from 178,059 to 157,737. The number of pending suits increased from 78,126 to 87,744, of which 2,352 had been pending more than a year.

Assam.—Institutions rose by 292 to 41,118, but pending cases fell from 12,220 to 10,411. The average duration of cases tried under ordinary procedure increased.

North-Western Provinces.—The number of suits instituted, 145,597, exceeded that of 1914, the largest previously recorded, by 23,002. Though the outturn was probably the highest recorded, the average duration in contested and uncontested cases falling from 83 and 45 to 65 and 40 respectively, the pending file rose by 2,648.

Oudh.—Institutions increased from 59,173 to 67,701, after a drop for the last 2 years. The pending file rose by 1,647, or about 19 per cent.

Punjab.—The number of suits instituted rose by 3,900 to 199,166, about 7,000 above the average of the last 12 years. 2,353 applications under the Provincial Insolvency Act, III. of 1907, were dealt with, and work under this Act, which has proved unsuitable to the Punjab agricultural population, continued to increase. The average duration of suits and civil appeals showed a disappointing increase. The Punjab Panchayat Act came into practical operation. It has produced good results in some districts, but has not appreciably diminished litigation in courts, and though it is yet too early to pronounce upon its working, opinions as to its ultimate success are not very favourable, the principal objection to it being that a system which gives the option of refusing to submit to a panchayat will not succeed. The ideal to which Government looks forward, namely, that the great mass of the petty disputes (which for want of a better agency are now brought into court) should be settled by some suitable local machinery, is not yet attained.

Burma.—The total number of suits before the courts rose by over 6,500 to 56,981 in Lower Burma; in Upper Burma by 1,600 to 21,188. The pending file rose to 7,963. The number of appeals decreased in all courts, and the number of long pending appeals was reduced by more than one half. Imprisonments for debt reached the highest figure since 1910, Lower Burma contributing 659 and Upper Burma 114.

North-West Frontier Province.—In spite of the war and of unrest on the frontier, suits instituted rose to the record number for the province of 28,926, or 131 per 10,000 of the population. The average duration in contested cases dropped from 36 days in 1914 to 31, and the percentage of pending suits (2,487 in number) from 8 to 7.

Central Provinces and Berar.—Institutions rose by 12,880 to 110,502. Though the pending file increased, the number of suits pending over 6 months was reduced. The duration of original suits fell.

Coorg.—The number of suits filed was 242 more than in 1914, and the average value of a suit Rs. 52 more.

Crime and Police.

The political and economic unrest prevalent in a period of external war, high prices, acute scarcity in the latter half of the year, and severe plague, acted as a stimulus to the disorderly elements of the community in the Punjab, and the resultant lawlessness expressed itself in the most violent forms in the *Ghadr* conspiracy—a

(Crime and Police.)

conspiracy instigated by the *Ghadr* newspaper, published in California—and dacoities which occurred in the spring in the south-west portion of the province. But by putting into operation the special legislation of the Ingress into India Ordinance and the Defence of India Act the Lieutenant-Governor, Sir Michael O'Dwyer, was able to keep a check on violent crime; large numbers of potential criminals of desperate character were effectually disarmed by temporary restraints on their liberty of movement and action, and the *Ghadr* and other lawless movements were promptly quelled and there was no recrudescence either of political crime or of widespread lawlessness.

Rumours of the overthrow of the British Government similarly brought about a state of lawlessness in Bengal and a considerable outbreak of revolutionary crime. A deputy-superintendent of police, two sub-inspectors, and a Calcutta police constable were ruthlessly murdered, and there was a large number of cases of dacoity.

These revolutionary movements in the Punjab and Bengal were connected by like activity in Benares by the *Ghadr* party.

Difficulty in recruiting for the police is reported from many parts, and the necessity for larger expenditure. The recent increases in the pay of the Bengal Police have had their effect in reducing vacancies. Improved pay is to be introduced in the Punjab next year. Buildings in Bengal and Bombay are reported to be in a bad state. A river police district was constituted in Assam.

Delhi.—On the whole there was less crime. The province was fortunately free from dacoities of a political nature, in spite of the share of certain residents in revolutionary conspiracy. Preventive measures were freely used. 1,934 true cases were dealt with by the police as compared with 2,417 in 1914 and 2,839 in 1913.

Bengal.—The important feature in the criminal history of the year was the outbreak of revolutionary crime in connection with the attempts at an insurrectionary movement due to German instigation referred to above. Twenty-four dacoities, 2 attempted dacoities, 9 murders, in Calcutta and elsewhere, and 1 attempted bomb outrage were believed to be connected with the revolutionary movement. In none of the murder cases was sufficient evidence for a trial obtained; but 5 Bengali revolutionaries were brought to bay in Orissa (*q.v.*) and dealt with there. Three of the dacoities were tried by special commissions, and 8 persons sentenced to transportation for life, others to shorter terms. 19 persons were arrested and detained under Regulation III. of 1818. Serious crime of all kinds except rioting showed a considerable increase. Burglary cases increased from 30,294 to 39,812; theft from 17,730 to 21,552; and dacoities from 289 to 653. The increase in dacoity was unprecedented all over the presidency, but the most serious outbreak occurred in Bakarganj, where 158 cases were reported. A special commission constituted under the Defence of India Act sat for over six months, and tried 44 cases, of which 41 ended in conviction, 163 persons being sentenced. Action under this Act and under the preventive sections of the Criminal Procedure Code was successfully taken in other cases, but though it weakened the revolutionary movement it did not succeed in destroying it. Cases under the Arms Act proved that a number of "poor whites" and Anglo-Indians were supplying the revolutionary party with arms, and indicate insufficient control of this traffic. Increased activity in circulation of seditious literature was responsible for much mischief. Registration under the Criminal Tribes Act was energetically carried out; 17 tribes were dealt with, bringing the total declared up to 22; cases against 6 others were completed, and 11 more instituted. Experience proves the necessity of an additional staff for surveillance to make this registration of value.

The number of true cases of crime reported increased by 14,011.

Calcutta.—95,583 cognizable cases were reported as against 96,488 in 1914. Several cases of political dacoity occurred.

Madras.—Grave crime increased by 1,424 cases, chiefly housebreaking and cattle theft, the increase being most marked in Ganjam and Vizagapatam, but murder, dacoity, and ordinary theft were practically stationary. The year was, on the whole, uneventful, but although there were no serious riots, unrest among the Mappillas, evidenced since early in the war, culminated in February in an outbreak of fanaticism in parts of the Ernad and Walluvanad taluks of the Malabar district, and a conspiracy to murder the district magistrate. It was suppressed without military assistance, though not without loss of life. The total of true cases of cognizable crime under the Indian Penal Code increased, probably to some extent as the result of improved reporting. The percentage of detection rose from 23·9 to 24·4.

Bombay.—There was an increase in cognizable crime, reported and true, (though the figures were less than for 1913); a slight rise in the percentage of persons con-

victed to persons tried (from 62·6 to 63·06); a slight falling off in the percentage of convictions to cases tried and to true cases disposed of; and a rise in undetected cases; all, however, ordinary fluctuations. Several gangs of criminals were detected and dealt with. An escaped convict, who organised a gang of Bhils in the Central Division, which committed a series of crimes, was arrested and sentenced to a year's rigorous imprisonment. Three tribes were notified as Criminal Tribes.

City of Bombay.—The heavy additional duties imposed by the war (removal of hostile aliens, their repatriation *viâ* Bombay, surveillance of incoming and outgoing vessels, &c.) were effectively discharged by the police in addition to their ordinary duties. The normal increase in reported crime received a notable check, probably as the result of measures taken to clear the city of undesirable characters during the war. 43,686 cognizable offences were reported, an increase of 2,577, mainly due to the registering of certain cruelty to animal cases. Seditious and inflammatory literature, and 10 copies of the proscribed *Ghadr* newspaper were confiscated.

Sind.—Reported crime rose abruptly from 10,745 cases to 12,208, the highest figure on record, with a marked increase in serious crime, four of the murders reported from the Hyderabad district being of an unusually brutal and daring character. Pending cases, however, fell from 1,444 to 1,332. The police were short-handed throughout the year, but though special police had, notwithstanding this handicap, to be posted all along the frontier to cope with the dacoits and other habitual criminals, who, taking advantage of the war tried to disturb the peace, the record in dealing with general crime, was satisfactory. The more serious dacoities ended in arrests and convictions. Recruiting of the police was difficult.

Bihar and Orissa.—There was an increase in crime against property, but a decrease in offences against the State and person, except in the case of murder. The closest watch was necessary to prevent the province from becoming a refuge for revolutionaries from Bengal, 5 of whom were captured near Balasore, 2 being killed. Of the survivors, a special tribunal sentenced 2 to death and the third to transportation for life. Four Bengali conspirators found to be closely connected with these were interned under Regulation III. of 1818. Action was also taken in various cases under Ordinances III. and V. of 1914–15, the Foreigners' Act, and the Defence of India Act. Cases of dacoity increased from 93 to 146, the most marked increase occurring in the Hazaribagh and Manbhum districts, where the police succeeded in breaking up the gangs responsible, who were notified under the Criminal Tribes Act.

United Provinces.—The total volume of reported crime was not appreciably higher than in 1914, but the number of murders was again abnormally high. Dacoities were numerous, particularly in the western and central districts, but the type known as political dacoity was absent; villagers made a more effective resistance, and the Criminal Tribes Act is slowly beginning to prove an effective weapon. Nine gangs were proclaimed, but much remains to be done, especially in proclaiming mixed gangs. Gypsies have been made over to the Salvation Army, whose settlements progressed well. Political work was heavy. The connection between the Punjab *Ghadr* party and the Bengal anarchists was found to have been effected from Benares, and after a long and patient investigation the Benares conspiracy case was instituted on the 2nd September. After a trial lasting three months, 11 accused were convicted out of 16 sent up for trial. Dissatisfaction with the existing conditions of police service reached a point when men of an undesirable stamp have to be accepted. The continued decline in the matter of successful detection was, perhaps, evidence of this.

North-West Frontier Province.—There was an increase of 8 per cent. in the more serious offences, due to the disturbed state of the border. True cognizable cases of all kinds fell from 4,566 to 4,485. The work of the Criminal Investigation Department was particularly heavy, largely owing to the wholesale return of emigrants, but the percentage of convictions to trials rose from 71·5 to 72·3. The increase of pay granted in November is already stimulating enlistment of recruits and producing withdrawal of resignations. The sanctioned force was increased in consequence of the policing of the railways being taken over by the administration.

Punjab.—The total number of true cognizable cases of crime decreased from 47,375 to 46,656, but there was a significant advance in serious offences against property, 10,628 convictions being recorded as against 9,096 in 1914. Murders decreased, and the steady decline in cases of rioting was maintained. An unprecedented outbreak of dacoities and disorder occurred in February and March in the Jhang, Muzaffargarh, and Multan districts, resulting in the conviction by special tribunals or regular courts of some 700 offenders implicated, and the quartering of punitive police in the disturbed areas. The beginning of the year found the province infested

by anarchist revolutionaries, many of them returned emigrants from America and the Far East. From headquarters in the Manjha, Malwa, and Doaba tracts they were conspiring to stir up insurrection in the Punjab and beyond. A series of outrages resulted; raids on the Kapurthala State Treasury and Central Jail, Lahore; the murder in Hoshiarpur and Amritsar of two active supporters of the administration; the Walla Bridge murders and the assassination at Padri of a witness. Nearly all the principals were brought to justice. The now historic trials known as the Lahore conspiracy and supplementary conspiracy cases lasted continuously for 11½ months, and in these and 23 smaller cases connected with the revolutionary movement, 304 persons, mostly returned emigrants, were concerned, of whom 48 were condemned to death, 93 to transportation for life, and 55 to imprisonment.

An invasion of the province by criminal tribesmen from the United Provinces made itself felt throughout the year, and seems to have been due to activities of the special police staff appointed in the United Provinces to deal with criminal tribes. 216 tribesmen from the United Provinces were arrested. The Frontier Crimes Regulation is in force in the Dera Ghazi Khan and Mianwali districts and the Leiah Tahsil of the Muzaffargarh district.

Assam.—Crime against property increased, but murder remained stationary, and true cases of dacoity fell from 17 to 7. Owing to vigilant preventive measures there was no gang case. The notorious Kamargaon gang of river dacoits in Sylhet was reduced to inactivity; other gangs were proclaimed under the Criminal Tribes Act. Thefts of arms were reported. There was no political crime. The military police were energetically engaged in training men for service with the regular army; no military operations were undertaken.

Central Provinces and Berar.—Again, as in 1914, the rise in reported crime was serious, from 37,570 to 40,683, or rather over 8 per cent., the highest on record since the famine of 1900. But riots decreased from 260 to 228, and murders remained practically stationary. Dacoities, however, increased by over 60 per cent., from 55 to 89, apparently as the result of delay, owing to lack of funds. in putting into operation the Criminal Tribes Act, and the consequent influx of criminal gangs from bordering provinces where it is at work.

Burma.—Cognizable crime increased by nearly 10 per cent. to 45,067 true cases, a record for the province, this increase taking place mainly in Lower Burma, and consisting of offences against the person and property. The number of violent crimes increased, but was not greater than in 1913, and was considerably less than in 1912. The Indian Arms Act was administered with vigour, and the number of fire-arms seized increased. The unfavourable economic conditions of the year reduced shortage in the police force, and the standard of conduct was on the whole well maintained. Early in the year the military police, assisted by regular troops, suppressed a serious rising of Kachins in the Myitkyina and Putao districts.

Criminal Justice.

Delhi.—The general situation remained much the same. True cases increased by 1 per cent. The percentage of conviction and composition rose from 80 to 83, and the average duration fell from 8 to 7 days.

Bengal.—331,362 offences were reported, or 11,039 less than in 1914. 276,559 were true cases as against 279,775, and 228,547 were brought to trial. 229,953 were disposed of. Of 6 persons tried in Bakarganj and 7 in Calcutta for offences against the State, 10 were convicted and 3 acquitted. There were 29 sentences of death and 101 of transportation.

Madras.—Cases instituted declined by 6,445 to 338,387, but crimes of violence increased in certain districts. 43 persons were sentenced to death and 247 to transportation. Appeals rose from 9,845 to 10,619. A Bill for the constitution of Village Panchayat Courts is proposed.

Bombay.—161,053 offences were reported as against 161,502, and 156,805 cases were disposed of as against 159,283. 54 persons were condemned to death and 235 to transportation, as compared with 62 and 204 respectively. Sentences were confirmed in 44·6 per cent. and reversed in 17·2 per cent. of appeals disposed of.

Bihar and Orissa.—98,229 offences were reported, or 5,824 less than in 1914, about two-thirds being under the Indian Penal Code. There was a decrease in offences against the person other than murders, but a rise in those against property. The percentage of cases found to be false, or withdrawn before trial, fell from 22·6 to 20·9, that of persons convicted to accused rose from 49·2 to 51·3.

Assam.—41,951 offences were reported as against 44,819 in 1914. 19,416 cases were brought to trial. 77 appeals were preferred before the High Court; 80 were disposed of, leaving 3 pending; 3 resulted in reversal and 10 in variation.

Punjab.—202,220 offences, or about 2,600 less than in 1914 were reported, but true cases increased, those of robbery and dacoity rising from 474 to 702, mainly where the activities of the *Ghadr* party were most marked. Murder cases and offences against the person generally again showed the decline continuous since 1912, apparently as the result of a robust policy in dealing with such offences. 144 sentences of death and 205 of transportation were pronounced. Appeals rose from 21,944 to 22,320. Applicants for revision were fewer by 1,600.

North-Western Provinces.—Offences reported under the Indian Penal Code decreased from 111,452 to 106,881, true cases from 80,591 to 77,590, and persons under trial for such offences from 158,296 to 152,682. 97 persons were sentenced to death and 340 transported for life. The number of appellants and applicants for revision were 20,083 and 4,114 as against 20,145 and 4,319 in 1914.

North-West Frontier Province.—The disturbed state of the frontier was reflected in a rise in serious crime. The only district excepted was Kohat, mentioned in last year's report as having the highest percentage, where decline probably resulted from vigorous action under the Frontier Crimes Regulation. 23,762 offences were reported as compared with 23,723; and 77 per cent. were again admitted to have occurred. Disposals increased. There was a further satisfactory decline in appeals. 25 persons were sentenced to death and 68 to transportation.

Oudh.—55,324 offences were reported and 43,330 cases brought to trial, as against 57,676 and 44,552 respectively in 1914. 42,544 cases were disposed of as against 43,994. Of 1,198 appellants 998 appeals were rejected and 105 sentences reversed.

Central Provinces and Berar.—The number of offences reported was 38,508 as against 42,189. 500 offences against life were reported. 50 persons were sentenced to death and 124 to transportation. 29,811 cases were disposed of. 5,962 persons appealed, 2,602 appeals being rejected and 1,235 sentences reversed.

Burma.—There was an increase in the number of true cases, and a rise in crimes of violence and against property. In Lower Burma 83,240 cases were brought to trial as against 80,145 in 1914, and in Upper Burma 28,473 as against 26,237.

Coorg.—The number of offences reported, 4,046, increased by 922. Trials increased by 963 to 3,911. The percentage of convictions was 42·06 as compared with 40·46 and 41·65 in the two previous years.

Jails.

The number of admissions to jails during the year was 568,280, and 558,008 persons were discharged, leaving a population on the 31st December 1915 of 122,287. The daily average number of prisoners, which had steadily decreased since 1908, rose in 1914 to 108,181 from 103,090, and in 1915 to 117,734. The percentage of previously convicted prisoners was 19·67 as against 19·82 in 1914, while the number of youthful offenders again fell, from 505 to 418. The number of convicts admitted was 180,466; 168,992 were released, and 1,486, as against 1,319 in 1914, transported beyond the seas, leaving a population on the 31st December 1915 of 107,811. 99,922 of the convicts admitted came from the classes engaged in agriculture and cattle-tending, and 151,756 were returned as illiterate. The marginal table shows the nature and length of sentences of convicts admitted to jails in 1915. The number of offences by convicts increased. The total daily average convict population for 1915 was 102,342; the total of offences dealt with by criminal courts was 193, and by Superintendents 179,112. The corresponding figures for 1914 were 95,260, 192, and 176,277 respectively. The total number of corporal punishments again showed a decrease, viz., from 352 to 327. The total number of cases in which penal diet (with and without solitary confinement) was prescribed, fell from 7,594 to 7,324.

Not exceeding one month -	45,065
One month to six months -	69,299
Six months „ one year - -	34,747
One year „ five years - -	24,755
Five years „ ten „ - -	2,984
Exceeding ten years - -	242
Transportation beyond seas :—	
(*a*) for life - - -	1,309
(*b*) for a term - - -	1,189
Sentenced to death - - -	828

Total expenditure rose from £618,588 to £669,578; total cash earnings from £109,845 to £127,689; resulting in an increase of £32,768 in net cost.

The death rate increased from 17·84 per mille in 1914 to 18·35 in 1915. The admissions to hospital rose from 565·28 to 597·09 per mille; the daily average number of sick from 25·36 to 26·77 per mille.

CHAPTER III.—FINANCE.

(*For further details, see East India Financial Statement; Accounts and Estimates, Explanatory Memorandum; Statistical Abstract for British India, Tables* 44 *to* 89.)

Form of Accounts.

The accounts of the Government of India show the transactions in India in rupees; the totals of these transactions are then converted into pounds at the rate of Rs. 15 = £1: the sterling transactions in England are next stated: and the last two sets of figures are added together, so as to show in pounds the combined transactions in India and in England. The comparatively small sums which have to be brought to account owing to the fact that the remittances to defray the net expenditure in England are not effected at exactly sixteenpence to the rupee are included in a single line under the head of Exchange.

Revenue and Expenditure.

The Gross Revenue and Expenditure in 1914–15 and 1915–16 were as shown in the margin. In these figures all receipts are included in the total of revenue and all outlay in the total of expenditure, except that the working expenses of railways and the surplus profits paid to certain railway companies are treated not as expenditure but as a deduction from Revenue. Net Revenue and Expenditure are arrived at after deducting the interest charges as well as the working expenses of the railways, the interest charges and working expenses of irrigation works, the cost of the cultivation and manufacture of opium, and the charges against other revenue-earning departments (excluding cost of collection) from revenue, and the receipts of spending departments from expenditure.

	1914–15.	1915–16.
	£	£
Revenue - -	81,157,666	84,413,537
Expenditure - -	82,942,936	85,602,198
Deficit	*£1,785,270*	*£1,188,661*

The net revenue of 1914–15 and 1915–16 and the expenditure charged against the revenue of those years were divided into Imperial and Provincial as follows:—

—	1914–15.			1915–16.		
	Imperial.	Provincial.	Total.	Imperial.	Provincial.	Total.
	£	£	£	£	£	£
Net Revenue - -	27,951,570	25,231,859	53,183,429	30,153,133	25,801,613	55,954,746
Net Expenditure -	29,736,840	25,231,859	54,968,699	31,341,794	25,801,613	57,143,407

The equilibrium between Provincial Revenue and Provincial Expenditure, which is shown in these figures, is due to the fact that, if the Provincial Governments spend less in any year than their income, the saving is added to their balances and treated in the general accounts prepared by the Government of India as though it had been spent, and that similarly excess expenditure by Provincial Governments, being met from their balances, is not charged in the accounts prepared by the Government of India against the revenues of the year. In 1914–15 the Provincial Governments drew on their balances to the extent of £2,190,152, in 1915–16 they added to their balances £130,940.

(For fuller information regarding Provincial Finance, *see* Decennial Report, 1911–12, pages 145–8.)

Home Charges.

The net expenditure in England chargeable to revenue was as follows:—In 1914–15, £19,525,856; and in 1915–16, £19,403,939.

Capital Outlay on Public Works.

The total capital outlay on railways, irrigation works, and the new capital of Delhi during the two years was as follows :—

	1914–15.	1915–16.
Capital not charged against the Revenue of the year :—	£	£
Railways	10,509,858	4,776,112
Irrigation	1,123,180	812,953
New capital of Delhi	360,361	331,274
Defrayed from Revenue :—		
Railways	— *852*	1,070
Irrigation	570,509	526,270
Outlay by companies	1,342,253	439,753
Total Capital Outlay on Railways, Irrigation, and Capital at Delhi £	13,905,309	6,887,432

Debt.

Amount of Debt.—The total debt of India outstanding on the 31st March 1915 and the 31st March 1916 amounted to :—

	1915.	1916.
(*a*) Permanent debt* :—	£	£
Total of Public Works debt	274,317,907	276,816,459
Debt incurred on new capital at Delhi	927,381	1,258,655
Balance, being ordinary debt	1,296,083	736,562
Total permanent debt	276,541,371	278,811,676
(*b*) Temporary debt	14,333,333	11,333,333
Total debt (permanent and temporary) on 31st March	£280,874,704	£290,145,009

1915–16.—In England £500,000 India bonds and £407,500 Indian Midland Railway Company Debentures were discharged during the year. £2,500,000 India bills were also discharged in May without immediate replacement. No sterling loan was raised, but £3,500,000 sterling bills were issued in September and a similar amount in November, both with a currency of twelve months. Of the former issue £1,500,000, and of the latter £1,000,000, were in replacement of the bills which, as mentioned above, were discharged in May. The remainder were in replacement of bills maturing. In addition £3,500,000 was raised by means of Railway debenture stock.

In India a 4 per cent. rupee terminable loan of 4½ crores (£3,000,000), exclusive of applications through the Post Office, was issued in July at par, and £3,000,000 of the outstanding loan of £7,000,000 from the Gold Standard Reserve was repaid.

The borrowing powers of the Secretary of State for India in Council are regulated by Acts of Parliament, the last being the East India Loans (Railways and Irrigation) Act, 1910, under which powers were granted to borrow in the United Kingdom, as and when necessary, up to £25,000,000 for the purposes of Indian public works.

Currency and Exchange.

The rupee (180 grains of silver, eleven-twelfths fine) and the half rupee are full legal tender for the payment of debts. The coinage of rupees is restricted to the amounts that are from time to time decided by Government to be sufficient to meet the requirements of the public. The English sovereign is also legal tender in India, at the rate of one sovereign to fifteen rupees (*i.e.*, 1*s.* 4*d.* to the rupee).

* The total permanent debt is classified in the accounts as (1) Public Works Debt, (2) Debt incurred on new capital at Delhi, (3) Ordinary Debt. The amount entered as belonging to the first category is the equivalent of the total capital expenditure which has been incurred on public works by the State, together with the amounts advanced to railway companies for capital expenditure; the "Ordinary Debt" consists of the remainder of the debt, less debt incurred on Delhi. In any year in which, owing to the use of surplus revenue or deposits for the construction of public works, the capital expenditure of the year exceeds the amount of debt incurred in the year, the effect is to cause a decrease to be shown in the amount of the Ordinary Debt.

(Currency and Exchange.)

Gold Standard Reserve.—From the 1st April 1900 the net profit from the coinage of rupees has been held as a special reserve, apart from the ordinary revenue, to secure the maintenance of exchange at the rate of 1*s.* 4*d.* to the rupee. It may serve this purpose either (1) by providing the Secretary of State with funds enabling him to dispense with sales of Council drafts when the demand for these is weak, or (2) by enabling him to meet drafts sold on London by the Government of India for the support of exchange. The constitution of the Reserve on the 31st March 1916 was as follows :—

	£
Sterling securities held in England (estimated value)	16,218,692
Cash placed by the Secretary of State for India in Council at short notice - - - - -	5,792,631
Sovereigns held in India on account of the Reserve -	238,734
Temporary loans to Treasury balance, India - -	4,000,000
Due to the Fund from Treasury balances in India -	1,326
Total - - - - -	£26,251,383

(Further information regarding Currency, Exchange, and the Gold Standard Reserve will be found in the Decennial Report, 1911–12, pages 164–9, and in the Report of the Royal Commission on Indian Finance and Currency, Cd. 7068, 1913.)

Exchange and Remittance.—During the years 1913–14, 1914–15, and 1915–16 the sale by the Secretary of State of bills and telegraphic transfers on India was as shown in the margin.

	Amount.	Average Rate.
	£	Per rupee.
1913–14 -	31,200,827	1*s.* 4·070*d.*
1914–15 -	7,748,111	1*s.* 4·005*d.*
1915–16 -	20,354,517	1*s.* 4·087*d.*

The regular demand for the bills and telegraphic transfers sold by the Secretary of State is due to the fact that they enable merchants and bankers to make the payments in India which are required mainly in consequence of the normal excess of India's exports over her imports. Reverse drafts on London were sold to the amount of £4,893,000 in June to September 1915.

Paper Currency.—Under the Indian Paper Currency Act, 1910 (II. of 1910), which consolidated and amended the law relating to paper currency, notes of the following denominations, viz., Rs. 5, Rs. 10, Rs. 50, Rs. 100, Rs. 500, Rs. 1,000, and Rs. 10,000 are issued to the public. The issue of 20-rupee notes has been discontinued.

There are seven currency circles having their headquarters at Calcutta, Cawnpore, Lahore, Bombay, Karachi, Madras, and Rangoon respectively.

Prior to the passing of the Paper Currency Act of 1910 the 5-rupee note alone was legal tender throughout India and payable at any office of issue in the country; notes of higher value were legal tender only within the currency circles in which they were issued. The Act of 1910 "universalised" notes of a denominational value of 10 and 50 rupees, and thus marked an important stage in the development of the paper currency system of India. The 100-rupee note was also made universal from the 1st April 1911. A reserve is held against the notes equal to their full value in (1) gold, (2) silver, and (3) securities (value taken at cost price). The law in force at the end of the year under review provided that securities of the Government of India and of the British Government might be held as part of the reserve up to a limit of £17,333,333 (Rs. 26,00,00,000), of which the British Government securities might not exceed £10,666,667 (Rs. 16,00,00,000); the remainder of the reserve must be held in gold or silver coin or bullion. On the 31st March 1916 the note issue amounted to Rs. 67,73,00,000. The constitution of the Paper Currency Reserve was as follows :—

	£
Gold - - - - - - -	16,112,000
Silver coin - - - - - -	15,710,000
Securities of the Government of India - - -	6,666,663
Securities of the British Government - - -	6,666,962
	£45,155,625

CHAPTER IV.—LAND REVENUE.

(For further details see Statistical Abstract of British India, Tables 45 to 49 and 120.)

General.

From time immemorial a share of the produce of the land has been the chief source of public revenue, and the land revenue now constitutes more than one-third of the total net revenue.

The early settlements of land revenue were permanent, but at length over the greater part of India a system of periodical settlements was established, under which the State demand is revised at recurring periods of 20 to 30 years, the latter period prevailing in all the larger provinces except the Punjab, the Central Provinces, and Burma, where settlements are usually made for 20 years. No alteration in assessments may be made during the term of a settlement, though the amount leviable year by year may vary according to the area actually cultivated or the condition of the harvest. A table showing the incidence of land revenue assessments in the different provinces is given in the Statistical Abstract. Under the system of periodical revisions the State secures a share in increased rental value arising from the general progress of the community, and the opportunity is afforded of reducing the assessment in villages or tracts which have declined in prosperity, and of correcting inequalities.

Tenant Right and Land Legislation.

Delhi.—There were 34 successful applications for enhancement of rent. In 147 cases ejectment of tenants without a right of occupancy was ordered. The Punjab Alienation of Land Act continued to work satisfactorily.

Bengal and Bihar and Orissa.—Though there was no dispute of outstanding importance between landlords and tenants, ill-feeling was again in some instances roused by the withholding of rent receipts and by the levying of illegal cesses. Out of 26 cases of failure to grant rent receipts in Bengal in which action was taken, 24 ended in the imposition of fines. In Bihar and Orissa cases were reported from every district but Purnea. The number of money orders issued for the payment of rent increased in Bengal and decreased in Bihar and Orissa. In Gaya (Bihar) the system of produce rent still proved a fruitful source of irritation. No practical difficulty was experienced in giving effect to the new Orissa Tenancy Act.

United Provinces.—Cases of concealment of rents were reported or suspected, and complaints of the prevalence of the system of *nazrana* were received from certain districts in Oudh. The gross area under the protection of the Agra Tenancy Act rose by 125,246 acres to 14,569,500 acres, continuing the unbroken rise since 1901–2.

North-West Frontier Province.—Permanent alienations under the Punjab Land Alienation Act were sanctioned in 15 cases, temporary in only two. No attempts to evade the law were reported except in Bannu, where 5 cases were suitably dealt with.

Madras.—The provisions of the Madras Estates Land Act, 1908, are becoming better known to the people, and this Act and the Madras Land Encroachment Act (Act III. of 1905) appear to be working smoothly. Though on some estates strained, relations between landlords and tenants were on the whole satisfactory.

Assam.—The relations between landlords and tenants in certain parts of the Goalpara district were not satisfactory, and sections 93 to 100 of the Bengal Tenancy Act were introduced into the permanently settled portion of this district.

Bombay.—Relations between landlord and tenant were smooth. The area of land held on restricted tenure increased.

Revenue Surveys and Settlements and Land Records.

Delhi.—Inspection work was satisfactory. The disposal of mutation work still leaves something to be desired.

Bengal.—In December the Assam Surveys were separated from those of Bengal, and sections of the Survey Department were reorganised. Out of the settled area of 63,893 square miles in which the Bengal Tenancy Act is in force, the record-of-rights has now been finally published in respect of 17,027 square miles.

Bihar and Orissa.—Settlement operations were in progress in six districts. The boundary between Champaran and Gorakhpur in the United Provinces was re-surveyed by the Settlement Officer, North Bihar, and an officer deputed by the government of the United Provinces, and their recommendations accepted by the local governments.

Assam.—As a result of the separation of the Assam Survey Department from that of Bengal, the Assam surveys were experimentally entrusted to the Survey of India.

United Provinces.—Schemes for the redistribution of patwaris' circles in Etawah and Fatehpur were sanctioned and took effect.

(Revenue Surveys and Settlements and Land Records.)

Punjab.—Settlements were brought to a close, and the filing of the new Record-of-Rights completed in 4 districts; revision is in progress in 4 others. During the year the pending file of mutations increased by nearly 8,000; but the number of partitions left pending at the end of the year fell below 4,000 for the first time in ten years, and, though there was an increase in institutions, more cases were decided than in any year except 1913–14.

Punjab Canal Colonies.—Survey and demarcation work was carried out in Upper Chenab and Lower Bari Doab colonies, but not in Lower Jhelum Canal Colony.

Central Provinces and Berar.—Settlement operations were in progress in five districts, and map correction preparatory to settlement in two. The local Traverse Survey Party completed the sub-traverse of 620 villages, and carried out the traverse of three towns in addition to special work in connection with boundary disputes affecting Native States. The Record-of-Rights for all the villages held on the ordinary ryotwari tenure in Berar was completed with willing help from the ryot, and without cost to Government.

Madras.—Orders were passed on most of the recommendations of the Survey Committee. Settlement operations were proceeded with by 6 parties.

North-West Frontier Province.—No survey operations or boundary demarcations were carried out. The number of mutations for disposal during the year increased, but the number unattested at the end of the year decreased.

Burma.—The area under supplementary survey fell slightly to 51,496 square miles, mainly owing to the introduction of fixed assessment in 2,625 square miles of scattered cultivation in the Yamethin district and to a decrease of 42 square miles in Pegu. The cost of the department amounted to 4·42 per cent. of the revenue assessed. In addition to surveys executed by the local Land Records staff, 585·37 square miles of revision surveys with an occupied area of 245,324 acres were executed by the Special Staff, who also surveyed mining leases in Tavoy and an oil-bearing area in Thayetmyo.

Bombay.—A large amount of settlement work was carried out with considerable temporary assistance. Staffs were reduced at the end of the year.

Collection of the Revenue.

The fluctuations in the gross land revenue receipts (exclusive of those credited to irrigation) in past years may be seen from the marginal table. Increase in land revenue has resulted from bringing new land under cultivation and from re-settlements, these, owing to the generally enhanced values of land, usually increasing revenue. Irrigation canals have enabled the cultivable area to be greatly extended, especially in Sind and the Punjab.

Year.	Land Revenue Receipts.
	£
1906–7 to 1910–11 (5 years' average)	20,096,000
1911–12 (single year)	20,765,000
1912–13 „ „	21,282,000
1913–14 „ „	21,392,000
1914–15 „ „	21,222,000
1915–16 „ „	22,031,000

The land revenue receipts in 1914–15 and 1915–16 were made up as follows:—

	1914–15.	1915–16.
	£	£
Ordinary land revenue	20,468,456	21,376,539
Assessment of alienated lands, less quit-rents*	643,285	637,036
Sale of proprietary right of Government in land†	56,233	59,408
Capitation tax, or house tax levied in lieu thereof‡	653,201	663,144
Sale of waste lands and redemption of land revenue	222,853	185,403
Recovery of survey and settlement charges§	120,042	160,286
Fisheries and other receipts	725,333	723,065
	£22,889,403	£23,804,881
Deduct portion of land revenue due to irrigation	1,667,864	1,773,720
Total land revenue	£21,221,539	£22,031,161

The charges in 1915–16 included £1,772,320 for district administration, £479,345 for survey and settlement charges, £999,654 for land records, and £657,409 direct charges of collection. The total charges were £3,902,729.

The advances made by Government to cultivators during 1915–16 (for the relief of agriculturists, for the improvement of land, and for loans to co-operative

* Mostly from Bombay. † Mostly from the Punjab. ‡ Mostly from Burma.
§ From Bengal, Burma, and Bihar and Orissa.

societies) amounted to £899,503, and the advances outstanding at the close of the year amounted to £3,045,269.

Delhi Province.—The area of 65 villages was added by transfer from the Meerut district of the United Provinces, resulting in increase in the fixed land revenue roll. The figures regarding coercive processes were more satisfactory.

Bengal. — The revenue demand, excluding arrears, amounted to £1,840,145, including £1,438,664 from 91,850 permanently settled estates, £113,340 from 3,348 temporarily settled estates, and £288,140 from 2,274 estates held direct by Government. The percentage of total collections on total demand (including arrears) was 93·82 per cent. as against 93·04 in 1914–15. The number of estates, &c. which became liable to sale for non-payment of Government revenue fell from 13,713 to 12,498, of which 1,087 were actually sold as against 861 in 1914–15. 45,825 certificates were filed for recovery of arrears of revenue, exclusive of 50,814 certificates filed for the realisation of cess arrears. Sales actually took place in 1,841 and 2,110 respectively.

Bihar and Orissa.—The total current demand was £1,008,310, *i.e.*, £711,875 from 95,537 permanently settled estates, £175,534 from 10,702 temporarily settled estates, and £120,901 from 293 estates held direct by Government. The percentage of total collections on total demand was 95·71, the lowest for the last five years. Out of 9,222 estates, shares, and interests liable to sale for non-payment of Government revenue, 384, or about 4·2 per cent., were sold. The total number of certificates, exclusive of those for cesses, filed under the Bengal Public Demands Recovery Act, increased from 32,608 to 35,575. Sale was necessary in 1,651 cases.

Assam.—The current revenue demand was £495,942, of which 91·90 per cent. was realised, as against 94·27 in 1914–15. Expansion of cultivation, especially in the Assam Valley continued, and was most marked in the district of Kamrup, where the area and revenue increased by 19,397 acres and £1,802. The total amount advanced under the Agriculturists' Loans Act was £142,814, of which nearly £136,666 were distributed in the Surma Valley in consequence of disastrous floods.

United Provinces.—The year ending 30th September 1915 witnessed some recovery from the adverse conditions of 1913–14, but rainfall was unfortunately distributed, and remissions and suspensions to the extent of nearly £53,333 were necessary. £4,593,511 was collected. The demands of the previous year for agricultural advances under the Loans Acts resumed comparatively normal proportions.

Punjab.—Fixed land revenue demand for the year ending 30th September 1915 was £1,446,963, of which 98·8 per cent. was collected; fluctuating demand was about £853,333. 7,017 acres were acquired for public purposes, of which 2,581 were for railways, at a compensation of Rs. 198 per acre, and 3,723 for canals, at an average rate of Rs. 82.

North-West Frontier Province.—The fixed land revenue demand was practically the same as in 1914–15, £124,034; 98 per cent. was again realised. Fluctuating land revenue increased by £1,871, of which the greater part was contributed by Dera Ismail Khan. 2,557 coercive processes were issued as compared with 2,103 in 1914–15.

Central Provinces and Berar.—The current demand increased, owing to settlement changes, to £1,270,000. The net demand, after remissions and suspensions, was recovered with no greater difficulty than was to be expected in view of the heavy arrears both of land revenue and agricultural loans.

Burma.—In spite of damage to crops by floods, and in the dry zone districts of the Meiktila division by failure of the rains, the total land revenue demand rose, owing entirely to revised rates of assessment following settlements. The difficulties of collection resulting from the war were not so severely felt, and the total collections improved by nearly £38,333. The number of coercive processes increased.

Bombay and Sind.—In 1914–15, the last year for which information is available, there was satisfactory recovery from the unfavourable conditions of 1913–14. Of £2,290,000, the land revenue finally demanded in the Presidency proper, after remissions and suspensions, 99·7 per cent. was collected. In Sind, 96·6 per cent. of the current demand of £758,333 was collected. Takavi advances were considerably reduced.

Madras.—In the year ending 30th June 1915, ryotwari holdings rose by about 216,000 acres to 25·55 million acres. The total cropped area was 39,090,000 acres. £4,947,839, or 98·7 per cent. of the gross current demand, was collected, against 98·8 per cent. in the previous year. After steadily decreasing for several years, the number of coercive processes rose from 1,161,568 to 1,513,159, but only 2,042 sales were necessary, the amount thus recovered being £2,649, or $\frac{1}{19}$ per cent. of the total land revenue collection.

(Salt.)

CHAPTER V.—REVENUE FROM TAXATION AND OPIUM.

Salt.	Provincial Rates.	Income Tax.	Registration.
Excise.	Stamps.	Customs.	Opium.

(*For further details see Statistical Abstract for British India, Tables* 43, 45 *to* 47, 50 *to* 58, *and* 61 *to* 64.)

Of the eight heads shown above, seven comprise the tax revenue, and furnish about two-fifths of the total net revenue of the Indian Government.

Salt.

General.—The salt revenue is raised by a duty on all salt imported into, or manufactured in, India. The general rate of duty, except in Burma, has been Rs. 1 per maund since 1907, but on 1st March 1916 it was raised to Rs. 1¼ per maund, certain locally produced salt in Burma continuing to pay 12 annas. It had already been ordered on 11th January that the duty on and price of salt removed from the various salt sources in India should be levied uniformly at the rates in force at the actual date of delivery to traders, and as withdrawals on a large scale from bonded warehouses had begun in anticipation of the enhancement of duty, an ordinance had been promulgated on 21st January empowering the restriction of removals of salt. Certain concessions sanctioned with a view to stimulating the production of saltpetre, for which India became the chief market when potash salts were no longer obtainable from Germany, had an excellent effect on production, and many fresh areas were tapped. Exemption from duty is granted under certain conditions for salt used in manufacturing processes. The gross revenue from salt amounted to £3,647,587, as against £3,910,790 in 1914–15. Of this over 26 per cent. was derived from imported salt. The charges amounted to £376,722, exclusive of £258,001 paid under treaties as compensation, principally to Native chiefs who have assigned their salt sources to the Government of India.

The duty is levied on salt at the place of manufacture, or at the port of importation. Some of the salt sources belong to, or are worked under the direct control of, local governments; others are owned or leased by private individuals. The salt supply of India is not a Government monopoly, and the importation of salt is unrestricted. Manufacture is not allowed where the circumstances are such as to render collection of the duty impracticable.

Salt affairs in Upper India are controlled by the Northern India Salt Department, which is under the direct administration of the Government of India. The maritime local Governments have their own salt departments. Bihar is under the Northern India Salt Department, but Orissa has its own.

Northern India.—The salt sources controlled by this Department are: (1) The Rajputana sources, including the Sambhar Lake and the brine springs at Pachbadra and Didwana, and (2) the Punjab sources, including the Mayo, Warcha, and Nurpur mines, the Kalabagh quarries, the Mandi mines, the brine springs at Sultanpur, and the Kohat mines (N.-W. Frontier Province). The most important are the Sambhar Lake and Mayo mine, but the sale and popularity of Pachbadra salt steadily increase. 11,239,247 maunds of duty-paid salt were sold, or 9·93 per cent. less than in 1914–15, a year of abnormal sales in anticipation of enhanced duty. The gross revenue, £910,714, showed a decrease of 6·61 per cent. The average retail prices were higher in Bihar, the N.-W. Frontier Province, Punjab, Delhi, United Provinces, Central Provinces and Berar, Rajputana and Central India. 51,805 licences to manufacture saline substances (an increase of 4,110) were issued, the increase being the result of the concessions referred to above and of the high prices prevailing; 23 more refineries were worked than in 1914–15. The output of refined saltpetre was 608,524 maunds, or 91,839 more than in 1914–15. 232 persons were prosecuted for offences against the Salt Act, and 95·36 per cent. convicted. Owing to shortage of officers, the Punjab border near the Bikaner State was not patrolled during the year.

Bengal.—The salt consumed in Bengal is imported from abroad or from other parts of India. The average wholesale price per maund rose from Rs. 2 a.5 p.10 to Rs. 2 a.15 p.8. The total quantity of salt which passed into consumption was 7,855,974 maunds, exclusive of 4,782,859 maunds, the net export by rail, road, or river. 223 cases were dealt with under the Salt Law as compared with 13 in 1914–15; of 170 cases sent up for trial, 133 were disposed of, and all ended in conviction. The Excise and Salt Departments under the Commissioner of Excise and Salt were amalgamated during the year.

Orissa.—There is no direct import of salt from foreign countries. The scheme previously sanctioned for amalgamation with the Excise establishment was kept in abeyance. The total imports were 1,160,192 maunds (266,785 from Calcutta, 892,625 from Madras, and 782 from Bombay). 299 offences against the Salt Laws were reported as against 79 in 1914–15. 232,871 maunds of refined saltpetre were produced as against 222,123.

Madras.—The number of Government factories was reduced from 20 to 19, and the number of Excise factories from 45 to 44. Owing to heavy rains in the Central and Southern divisions, only 9,411,028 maunds were manufactured as against an average annual total outturn of 10,946,962 maunds during the previous five years. Imports of duty-paid salt by sea from Bombay increased from 1,400,307 to 1,536,569 maunds, and by rail from Bombay and Goa from 384,671 to 627,113 maunds. The total issues for home and inland consumption of salt locally manufactured and imported by sea and rail were 9,179,918, 1,539,396, and 627,113 maunds respectively, as against 10,549,184, 1,404,296, and 384,671 maunds in 1914–15.

Bombay.—Bombay is supplied with salt from three sources: (1) Baragra or Rann salt, made from brine wells on the Lesser Rann of Cutch, named the Pritchard Salt Works, Government property and worked departmentally; (2) sea-salt, made within the Presidency, at factories the majority of which are owned as well as worked privately, but a few are leased by Government to private individuals, and one at Dharasna is both Government property and worked departmentally; (3) imported salt, mostly from sea-salt works in Goa territory. The outturn of Baragra salt, owing to favourable climatic conditions and the return of many of the old Agrias to their ancestral occupation, as the result of the prevailing scarcity and improved housing conditions near the works, was the highest on record; that of sea-salt decreased by 14 per cent., partly owing to the early onset of the rains; and the quantity of imported salt increased. The total quantity of salt manufactured declined to 13,024,417 maunds, or 6·7 per cent. 3,637,263 maunds were retained for local consumption, or 13·5 per head as against 13·7 in 1914–15. The average selling prices showed no very marked fluctuations. The development of a new industry in the local production of magnesium chloride from "bitterns" removed from the Kharagoda works produced 9,418 cwts. crude and 1,622 cwts. semi-refined magnesium chloride. There was a slight decrease in expenditure, and the gross receipts were the highest attained since the reduction of the duty 10 years ago, with the exception of 1914–15; net profits were considerably above the average.

Sind.—The measures taken to increase output at Maurypar Salt Works were continued with satisfactory results, and excavations at the natural salt deposits at Dilyar and Saran improved. Consumption rose from 457,998 to 517,699 maunds, making the average consumption per head 12·12 lbs. as against 10·69 lbs. in 1914–15. Financial results improved everywhere.

Burma.—A decrease in the imports of foreign salt by 895,944 maunds, or 38 per cent., to 1,462,524 maunds, resulted entirely from cessation of supply from enemy sources; the decrease in imports from the United Kingdom, Port Said and Aden, owing to tonnage shortage, being counterbalanced by increased imports from Indian ports, Spain, and elsewhere. Shortage in October resulted in a marked rise in the wholesale price and in decreased consumption. Local output had increased during the year, but could have been larger if the situation had been foreseen earlier; as it was, the proportion of the total salt revenue—one fourth—derived from local salt was the highest known. The proportion of Burma-made salt to the total salt consumed was 31·8 against 21·8 in 1914. The total estimated consumption fell from 2,453,791 to 2,156,112 maunds, and the average annual consumption per head from 16·67 to 14·64 lbs. 48 persons were convicted for illicit manufacture as against 53 in 1914.

Excise.

Excise revenue is derived from the manufacture and sale of intoxicating liquors, opium, and other drugs, principally hemp. There is also an excise duty on cotton goods produced in Britsh India.*

The whole question of excise administration as regards alcohol was reviewed in 1905 by a committee, whose recommendations included advances in taxation, the further concentration of distillation, the extended adoption of the contract distillery system, and improvements in the preventive and other establishments. Action has been taken, and, when necessary, legislation has been carried out to enforce the Committee's recommendations. The subject has recently been reviewed at length by

* Shown under Customs.

(Excise.)

the Government of India and Local Governments, and papers on the subject were published in 1914.* In a few remote districts the old "out-still" system of distillation continues under licence. Otherwise the whole of India is gradually being brought under the contract system. By this the dangers of unrestricted competition for the supply of liquor and the attendant difficulties of proper supervision are avoided, while the largest possible proportion of the monopoly profits are secured to Government. The number of retail spirit shops is being steadily reduced. Objections are invited from the public before any new retail shop is licensed, and the location of all the shops comes periodically under review by advisory committees in all towns of any size. Fermented liquors are taxed mainly by means of licenses for manufacture and retail trade. In Madras and Bombay a fixed tax per tree is levied on trees tapped for toddy. Spirits and beer manufactured in India on European lines are taxed at the same rate as the customs duties on similar liquors imported from abroad.

The excise revenue on opium is chiefly derived from duty and vend-fees. Opium smoking is subject to stringent legal restrictions. Hemp cultivation is restricted and controlled, and a duty and vend-fees are levied. *Charas* is now prohibited in some districts, and elsewhere is subject to a high duty. The habit of cocaine-taking has of recent years become common among certain classes in the larger towns of Burma, Bengal, Bombay, the Punjab, and the United Provinces. Any person found in possession of the smallest quantity without a licence is now liable to punishment, and large quantities of smuggled cocaine have been seized by the preventive officers. A conference to consider measures for the suppression of cocaine smuggling was held at Delhi in November 1914.

The following table shows the Excise Revenue from 1913–14 to 1915–16 under the different heads, as given in the Finance and Revenue Accounts :—

Year.	Licence and Distillery Fees and Duties for the Sale of Drugs and Liquors.					Other Duties, &c. on Indian Consumption of		Fines, Confiscations, Miscellaneous.	Total Revenue.	Charges.	Net Revenue.
	Foreign Liquors, &c.	Country Spirits.	Toddy and Pachwai.	Opium and its Preparations.	Other Drugs.	Opium, &c.	Ganja.				
	£	£	£	£	£	£	£	£	£	£	£
1913–14	335,063	4,820,213	1,507,994	377,086	546,630	914,401	360,895	32,018	8,894,300	437,529	8,456,771
1914–15	358,141	4,660,291	1,566,897	414,245	576,963	887,293	353,126	39,925	8,856,881	459,685	8,397,196
1915–16	337,740	4,411,682	1,523,103	424,763	577,135	950,656	369,653	37,190	8,632,209	470,740	8,161,469

A sum of £785,986 was yielded by customs duties on exciseable liquors imported into India during 1915-16. The growth of the excise revenue in recent years is due largely to higher rates of duty and stricter excise control. The war and consequent depression of trade, with unfavourable agricultural conditions, and much enhanced duties, restricted consumption in 1915–16.

The number of retail shops and the excise receipts, as compared with the population, are shown in the following table, province by province :—

PROVINCE.	Population of Excise Area.	Number of Persons per Retail Shop licensed in 1915–16 for the Sale of				Net Excise Receipts per 10,000 of Population in Rupees.
		Country Spirit.	Country Fermented Liquor.	Opium and its Preparations.	Narcotic or Intoxicating Drugs, other than Opium.	
Bengal	45,329,247	36,763	13,939	52,770	22,710	3,225
Bihar and Orissa	34,490,084	17,552	5,168	62,463	21,159	3,003
Assam	6,622,431	34,854	183,956	18,602	25,768	7,996
United Provinces	47,182,044	10,622	16,549	43,890	13,947	2,456
Punjab	19,548,126	27,150	888,551	22,599	38,330	3,471
North West Frontier Province	—	—	—	—	—	—
Burma	10,534,808	512,108	10,268	84,958	—	6,587
Central Provinces and Berar	13,916,308	3,835	26,865	13,067	12,549	6,773
Madras	41,430,193	5,490	3,195	59,441	91,863	8,030
Bombay	16,113,051	8,319	15,583	21,118	28,219	11,957
Sind	3,513,435	16,342	878,358	16,973	10,551	6,652

The principal features of the excise administration in 1915–16 were as follows :—

Bengal.—The total revenue, £1,008,705, again showed a decrease. In spite of considerable reduction in consumption there was a noteworthy increase in the revenue

* For the Report of the Committee of 1905, and for the orders passed by the Government of India thereon, *see* Parliamentary Papers Cd. 3327 and 3816, and House of Commons Papers 142 and 209 of 1907, For the later papers, *see* Cd. 7524 and 7604 of 1914.

derived from opium, partly as the result of the increased treasury price introduced on 1st April, and partly owing to increased competition for licences. The consumption of *ganja*, the duty on which was increased on 1st April, decreased by more than 10 per cent. The revenue from country spirit was £422,233, from hemp drugs £235,834, and from opium £209,060. The reorganisation of the Excise Department was further carried into effect. A special staff has been organised in connection with the Excise Intelligence Bureau to cope with smuggling. The Customs officials effected two record seizures of opium; they also made large seizures of cocaine, whilst the Excise officers seized no less than 509 ounces of the drug, as compared with only 64 ounces in 1914–15. 1,140 prosecutions for illicit possession of cocaine were recorded in Calcutta.

Bihar and Orissa.—The total revenue, £731,424, again showed a decrease. The fall in country spirit was further increased by an interesting socio-religious movement among the Uroans of Chota Nagpur, who abjured its use, but instead drank home-brewed pachwai, the consumption of which correspondingly increased. The revenue from country spirit fell to £345,861, and that from hemp drugs to £172,440. The revenue from opium increased to £106,340, but consumption was less than in any previous year since 1907–8. The illicit trade in cocaine showed no marked decrease, and the Board was not altogether satisfied with the working of the special arrangements for the suppression of cocaine smuggling. It considers the curtailment of rewards a mistaken policy. The establishment of a neutral zone on the Nepal border worked well on the whole. Execution of the reorganisation scheme sanctioned for the department had to be delayed.

Assam.—Though the province was no exception to the rule of diminished consumption, there was a small net increase in revenue of £962, or ·2 per cent. The number of stills was again reduced. The revenue from opium, hemp drugs and country spirits rose to £203,596, £55,073 and £101,627 respectively.

United Provinces.—The total revenue fell to £805,502, mainly through the fall in country spirits to £492,552. The consumption of *ganja*, after steady increase for seven years, declined, as did that of all intoxicants except *charas*, the consumption of which after three years' decline rose so considerably as to maintain the income from hemp drugs at practically the same figure as last year, £171,743. In spite of large decrease in consumption the revenue from opium rose to £89,610. Prosecutions for illegal manufacture of spirit rose from 399 to 688; cocaine prosecutions decreased owing mainly to diminished supply, but a certain amount seems now to be obtained from Japan. Offences against the opium laws continued to be lamentably frequent.

North-West Frontier Province.—The revenue, £23,574, showed a slight decrease. Expenditure increased to £1,026.

Punjab.—Revenue increased by about 1 per cent. to £467,258. For the large decrease in the consumption of country liquor by 13 per cent. to 331,603 gallons, the efforts of the administration to assist temperance reform has some responsibility. The number of country spirit retail licences was reduced from 748 to 720, licences at fairs were greatly restricted, no liquor shops were opened at the great Sikh fairs, temperance teaching was vigorously promoted, and the local and municipal bodies were constituted the regular advisers of the collector on excise policy. Measures were taken to check illicit distillation, 223 cases being detected. The increase in the issue price of excise opium raised receipts from sales by 38 per cent. to £58,353, but only decreased consumption by 3·9 per cent. The traffic in cocaine ceased to expand, but the sales at Lahore, which exceeded those of all the rest of the province, are to be especially investigated.

Burma.—Revenue fell by nearly 11 per cent. to £462,622. To this decrease all classes of liquor contributed, but the total opium revenue increased by 1·6 per cent. to £250,214. Opium smuggling appears to have been checked by the reduction of the steamer service from India, and energetic action was taken against opium dens in Rangoon, but the use of morphia continues to increase. The cocaine habit has been beneficially affected by stoppage of the German supply. 471 persons were convicted of illicit possession of *ganja*, of which a ton and a half was seized. Illicit manufacture and possession of country spirit and fermented liquors increased, and convictions exceeded those of 1914–15 by 1,117, or over one fourth.

Central Provinces and Berar.—Revenue fell to £635,732. Consumption of country spirit, fell from 1,016,700 to 920,800 proof gallons, a decrease of 9 per cent. following on a decrease of 13 per cent. in 1914–15. There was a satisfactory decrease in the consumption of *ganja*, but the far more deleterious *charas* seems to be gaining in popularity. Illicit distillation remains a common offence in the plateau district.

(Excise.)

The issues of opium fell in the Central Provinces by 3, and in Berar by 7 per cent. Those of cocaine increased. The advisory committees introduced under the new Excise Act performed their duties satisfactorily. The scheme for the reorganisation of the Excise Staff sanctioned in 1914 proved inadequate; a revised scheme was formulated.

Madras.—There was a slight decrease in revenue to £2,217,956. The consumption of opium, country spirits, and hemp drugs decreased. The rules relating to cocaine and allied drugs worked well. 216 cases were convicted under the Opium Act as against 202 in 1914–15, and 5 cases of opium smuggling as against 21.

Bombay.—Receipts increased (under every head) to £1,355,299; increased revenue from country spirits was accompanied by decreased consumption, which fell from 2,575,625 to 2,130,812 gallons. Revenue amounted to £1,216,823 as against £1,219,721. The beer brewing industry was extinguished by the closing of the Bombay and Dapuri industries. There was a large all-round decline in the importation of foreign liquors. The consumption of hemp drugs, except ganja (which decreased), increased. The amount of cocaine licitly imported and sold decreased.

Sind.—Gross revenue rose to £158,307 from £155,151 and net rose from £152,449 to £155,817.

Provincial Rates.

Since 1904–5 many cesses levied under this head have been abolished, and the revenue amounted in 1915–16 to only £41,845, as against £180,210 in 1913–14.

Stamps.

The stamp revenue is derived from two great classes of stamps, judicial or court fee and non-judicial stamps. The revenue from the former increases with the growth of litigation, and from the latter with the development of trade and industry. In 1915–16 the revenue declined under both heads. The gross stamp receipts for 1914–15 and 1915–16 were £5,082,043 and £5,433,632 respectively. In 1915–16 the sale of court fee stamps realised £3,733,743 and that of commercial and other stamps £1,657,482. Over one-fourth of the revenue is derived from Bengal.

Income Tax.

The gross revenue from income tax in 1915–16 was £2,090,109, as compared with £2,036,733 in 1914–15. Ordinary collections produced £1,683,894 and Government salaries and pensions, £322,197.

Customs.

The revenue was collected during the first eleven months of the year as in 1914–15 (*see* Statement for 1914–15, p. 19), but in March 1916 the Indian Tariff Act of 1894 was amended in order to increase revenue. The general tariff rate of 5 per cent. on imported articles was raised to 7½ per cent.; the rate of 1 per cent. on certain descriptions of iron and steel was raised to 2½ per cent.; special increased duties were placed on arms, beer, &c., and import duties were placed on railway materials, food grains, &c. hitherto free. The import duty of 3½ per cent. *ad valorem* on woven cotton goods was not revised. Export duties, previously levied on rice* only, were placed also on jute and tea.

The gross revenue from imports, salt excluded, already much diminished in 1914–15, decreased by nearly 9 per cent.

	1914–15.	1915–16.
	£	£
Sea Customs, import duty :		
Arms, ammunition, &c.	35,633	37,958
Liquors	811,247	785,986
Petroleum	571,489	476,955
Cotton manufactures	1,023,832	901,521
Silver bullion and coin	1,030,068	637,130
Other metals	328,167	245,315
Sugar	293,144	404,439
Tobacco	178,556	189,104
Other articles	1,106,582	1,245,240
Export duty on rice, tea, and jute*	553,192	526,208
Miscellaneous	28,559	31,579
TOTAL Sea Customs (gross receipts)	5,960,469	5,481,435
Land Customs	37,812	36,884
Excise duty on cotton manufactures	329,395	328,372
Miscellaneous	19,524	27,196
TOTAL CUSTOMS REVENUE (gross receipts)	6,347,200	5,873,887

Registration.

General.—Offices exist in every district for the registration of documents, and for keeping copies thereof. *Ad valorem* fees are charged for registration, and a small

* Only the export duty on rice (in 1915–16 £508,379) is shown in 1914–15.

fixed fee for searching the records. Documents relating to the sale, mortgage or lease of immovable property, compulsorily registrable, comprise the great majority of registrations. The gross registration receipts in 1915–16 were £518,879, as against £485,295 in 1914–15, and the cost of the registration offices was £259,840.

Opium.

The opium revenue is raised by a monopoly of the production of the drug in certain districts in the United Provinces, where opium is grown for use in India and for export. The cultivator of opium (known as Bengal opium) in these districts must hold a licence, and is granted advances for cultivation. He is required to deliver the whole of his outturn at a fixed price to Government agents, by whom it is despatched to the Government factory at Ghazipur. The supply of prepared opium required for India, "excise opium," is made over to the Excise Department, and Rs. 8½ per seer is credited to opium revenue for the amount. The chests of "provision" opium, for export, are sold at monthly auctions in Calcutta, or, in certain cases, direct to other Governments. The export of Bengal opium to China ceased early in 1913.

The opium revenue and expenditure in 1915–16 were £1,913,514 and £1,143,331 respectively as compared with £1,572,218 and £654,089 in 1914–15. The net revenue was £770,183 as against £918,129 in 1914–15. These figures exclude excise duties on opium consumed in India (shown under Excise). The number of chests sold by auction for export in 1915–16 was 10,020, at an average price of Rs. 1,719 per chest, while 90 chests were sold direct to the Hong Kong Government and 2,550 to the Straits Settlement Government.

(Season and Crop Reports.)

CHAPTER VI.—AGRICULTURE.

Season and Crop Reports: General Remarks.

Delhi.—The total rainfall was 15·75 inches as compared with an average of 27·52, and the season was a bad one.

Bengal.—The season was a fairly good one for the winter rice crop, but somewhat unfavourable for the autumn and spring crop. The total cropped area was 29,034,900 acres. Except in the districts where distress prevailed, the condition of the agricultural population was fair.

Bihar and Orissa.—The total outturn of crops was distinctly better than that of the previous year. The labour market showed signs of improvement, and the condition of agriculturists was on the whole satisfactory, except where crops failed owing to excessive rain.

Assam.—Floods of exceptional severity from June to August, followed by drought, reduced the outturn of rice, oil-seed, sugar cane, and jute to considerably below normal, and necessitated relief measures in the Surma Valley. In the Assam Valley, though the year was unfavourable to cultivators, there was no general distress.

Punjab.—Rainfall was unfavourable, and the sown area decreased. Of the autumn harvest the total matured area fell short of last year by 35 per cent.; the matured area of spring harvest was 29 per cent. short. The agricultural population stood the strain well.

Punjab Canal Colonies.—Progress in surveying showed a shortage of land suitable for completing colonisation in the Lower Bari Doab and Lower Jhelum Canal Colonies, and after the close of the year land in the Upper Chenab Canal Colony was allotted to disappointed grantees.

United Provinces.—The provinces were in some parts visited by the heaviest floods experienced for years. While in parts the rainfall was below normal, and the area sown in consequence short, others did well. The net cropped area rose by 70,531 acres, or 0·2 per cent. above the previous year, and 2·1 per cent. above normal. Harvests were satisfactory, and on the whole the year was a prosperous one.

North-West Frontier Province.—Owing to deficient rain the total sown area, 2,277,953 acres, was 863,832 acres below that of 1914–15, and 526,008 acres below normal. The yield of rice was 6 per cent., and that of barley 41 per cent., above normal; that of wheat 8 per cent. below normal. On the whole, prosperity was maintained, and the year healthy.

Central Provinces and Berar.—Weather conditions were on the whole not unfavourable, and the harvests produced 112 per cent. of the normal as against 97 per cent. in 1914–15. The condition of agriculturists was prosperous everywhere.

Burma.—A very favourable season in Lower Burma was somewhat spoilt by rains in November and December, which, however, helped to improve crops in Upper Burma, where they were at that date irregular owing to uneven distribution. There was nowhere any approach to scarcity; on the whole, conditions improved.

Madras.—The rainfall was on the whole favourable. The total cropped area of the year ending June 1915, 39,090,000 acres, exceeded the normal by 929,000 acres.

Bombay.—Frost and unsatisfactory rainfall adversely affected the crops in Gujarat, and in Sind rainfall was insufficient: elsewhere the season was favourable. The area under food grains expanded by about 10 per cent.; the total outturn of cotton was about 41 per cent. less than in 1914–15.

Agricultural Produce.

(*For further details see Statistical Abstract for British India, Tables* 117 *and* 121.)

The chief crops are rice, wheat, barley, various kinds of millets, pulses, maize, oilseeds, sugar, tea, cotton, and jute. Particulars for 1915–16 regarding some of the more important staples are given below. The figures are derived from returns of crop forecasts, and they include certain Native States as well as British India.

Rice.—Nearly 35 per cent. of the total cultivated area is under rice in India, which exports more rice than any other country, though only about 9 per cent. of the total production. Bengal, Bihar and Orissa, Burma and Madras are the principal producers, and Burma the largest exporter. The area under rice rose from 76,625,000 to 76,792,000 acres, and the estimated yield from 27,242,000 to 32,877,000 tons, exclusive of 300,000 tons from about 760,000 acres in British provinces for which no estimates are made. Exports decreased by 10 per cent. in value and 12 per cent. in amount.

Wheat.—Wheat occupies about 20 per cent. of the whole cultivated area, and furnishes about 10 per cent. of the world's supply. About 80 to 90 per cent. of the total yield is retained in the country. More than half of the total wheat area is in the Punjab and United Provinces. The area under wheat, 30,143,000 acres, fell below that of 1914–15, which was an exceptional year, by 2,332,000 acres, or 7 per cent.; the estimated yield, 8,518,000 tons, was less by 1,569,000 tons, or 16 per cent. The exportable surplus was taken over by Government in April. 652,879 tons were exported, as against 706,383 in 1914–15.

Sugar.—India is the greatest producer of cane-sugar in the world, but cannot meet her own demands. Diminution of area, continuous in recent years owing to the increasing imports of Java sugar, was beneficially affected by the prevailing high prices, and the total reported area rose in 1915–16 to 2,375,000 acres, or by 3 per cent. The estimated yield, 2,636,000 tons, was 7 per cent. above the final figure, 2,462,000 tons of the preceding year. 10 per cent. of the crop is grown in Peninsular India, and 90 per cent. in the Indo-Gangetic plain. Experiments in improved methods of cultivation are in progress, and some assistance in recovery is expected from the opening of new irrigation works and from the 10 per cent. customs duty on imported sugar. There is a large production of palm sugar in Bengal, Madras and Burma.

Tea.—The year was characterised by a large outturn coupled with high prices. The area, 636,200 acres, of which 383,000 acres were in Assam and 161,300 in Bengal, increased by 2 per cent., and the estimated production, 371,856,700 lbs., by more than 19 per cent. The total number of chests sold in 1915–16 amounted to 959,000 as compared with 680,000 in 1914–15 and 850,000 in 1913–14 Shipments to the United Kingdom (73½ per cent. of the total) increased by 12,986,000 lbs., and to Russia by 17,000,000 lbs.; but exports to France, Italy, America, Australia and New Zealand decreased. The net increase in exports was 12·5 per cent., or nearly 38,000,000 lbs. Owing to difficulties of tonnage much tea remained for shipment at the close of the year. The number of permanent employees increased by 20,207, and of temporary by 1,618. The capital of joint stock companies engaged in the production of tea amounted to about £20·7 millions, of which £17,670,760 was contributed by companies registered in the United Kingdom.

Jute.—Jute is by far the most important of the fibre crops of India, which has a virtual monopoly of jute. It is grown principally in Bengal, Bihar and Orissa, and Assam. Mainly owing to low prices due to the war, the total area, 2,377,000 acres, decreased by 29 per cent., and the estimated yield (7,345,000 bales of 400 lbs. each) by 30 per cent. In some important districts floods damaged the crops. Exports of raw jute rose from 2,828,532 to 3,360,633 bales.

Cotton.—The total reported area under cotton, 17,967,000 acres (of which 4,815,000 were in Bombay, and 4,061,000 in the Central Provinces and Berar), as well as the total outturn, 3,819,000 bales of 400 lbs. each, were about 27 per cent. less than in 1914–15, partly owing to seasonal and partly to price conditions. Exports of raw cotton showed a decrease of 14 per cent. in quantity and 26 per cent. in value, and amounted to 442,698 tons. Of this Japan took 295,883 tons as against 222,747 in 1914–15, and exports to the United Kingdom increased from 35,389 to 41,682 tons.

Oil Seeds.—The Indian export trade in oil seeds and vegetable oils is worth annually over £16½ millions, though only about one-third of the output is exported. The area under linseed and ground nut decreased; the yield increased by 19·4 and 7 per cent. The area and yield of rape, mustard, and sesamum decreased. Exports of oil seeds decreased by 27 per cent. to 699,963 tons, a decrease as compared with 1913–14 of 56 per cent. in quantity and 61 per cent. in value.

Co-operative Societies.

(*For further details see Statistical Abstract for British India, Table* 115.)

These societies were started by Government to enable the poorer classes, particularly the cultivators, to borrow at reasonable rates. The Co-operative Credit Societies Act of 1904 was amended by the Co-operative Societies Act of 1912 to cover all co-operative societies and recognise central unions or federations of societies. It leaves wide discretion to local Governments, and the types of society favoured vary considerably. The provincial registrars of co-operative societies are officials, and official aid is given in various ways, though loans by Government, whose policy has been one of abstention from financial aid, form a steadily decreasing proportion of the working capital. Aid is also forthcoming with increasing readiness from non-official local gentlemen. The accounts of every society must be annually audited by a person

(Co-operative Societies.)

approved by the registrar, who also has a certain discretion as to granting applications for registration.

The two main difficulties of village societies, proper supervision and the provision of funds, have been met by the "central societies," of which the type most generally approved is the "Central Banking Union" that prevails in Bengal and is being largely adopted elsewhere. These unions are federations of village societies; they maintain a staff of trained inspectors and also act as banks for their affiliated societies, forming a medium between the latter and the open money market, their chief advantage over the local money-lender. In Bombay there is a central co-operative bank for the entire province with a Government guarantee. In the autumn of 1914 financial aid was also given by Government in the shape of advances to meet the situation created by the war. The village societies are almost all on the unlimited liability basis. They may not distribute their profits among members save with the sanction of the local Government, but in some provinces (*e.g.*, Burma, the United Provinces, and the Punjab) it has been found that societies formed on a share-basis answer best, though dividends may not be distributed until 10 years after the first share-payment. In other provinces the strict Raiffeissen rule is observed, and profits on working (beyond what is required for the reserve) go to the reduction of interest on loans to members. The rates of interest charged by village societies vary from 9½ per cent. in Bombay to 15 per cent. in Burma and Bengal, and the average rate is far below that charged by money-lenders, who have indeed been forced to lower their rates. The loans to members probably represent a saving to the agriculturist of more than 10 per cent. The interest paid by the societies on deposits is usually 6 to 9 per cent.

The educative effect of the movement is considerable. The societies are in close touch with the Agricultural Departments, assisting in demonstrations of new staples, the supply of implements, distribution of seed, &c.

The urban credit societies are chiefly limited liability concerns formed among salary earners. There are also urban and rural societies for objects other than credit, *e.g.*, for purchase of seed or manure, or, in the case of weavers and other artizans, of raw material, and for marketing the goods of members. Their development is comparatively slow. In Burma cattle insurance societies have proved a success; they have been started in the United Provinces, where they are still in the experimental stage.

A Government Committee on Co-operation in India constituted in 1914 issued its report during the year.

The total number of co-operative societies in British India in 1914–15 (the latest year for which information is available) was 16,295 (of which 16,016 were agricultural), with a membership of 761,935 and a total working capital of £5,718,380. Of the total capital of the societies, £1,643,131 represents share capital and deposits of members, £3,621,832 loans and deposits of non-members and other societies, £335,131 reserve, and £76,543 loans from Government.

The following is a brief account of the working of the movement in 1915–16 :—

Bengal.—The number of societies rose from 1,992 to 2,243, membership to 121,833, and working capital to £829,905. Agricultural societies increased by 210; their working capital rose to £379,568; their percentage of over-due loans, though still excessive, decreased. Non-agricultural societies increased from 91 to 125. By the establishment of 2 new banks and the exclusion of one old one, Central Banks increased to 39; their dealings throughout the year were satisfactory, though perhaps over-cautious. Expansion, though it took place, was not encouraged, owing to difficulties created by jute trade and other conditions. Further expansion will not be practicable without increase of supervisory staffs.

Bihar and Orissa.—The number of societies increased from 1,087 to 1,296, membership from 54,647 to 61,410, and working capital from £243,126 to £288,500. The Provincial Bank supplied a real need, and secured the position of the Central Banks, now increased to 20. The number of societies affiliated to the Central Banks rose from 888 to 1,066. 204 new agricultural societies were registered, but no new society was allowed where the working of the Central Banks was not quite satisfactory. This showed marked improvement, and it is hoped the adoption of a regular system will in time be effected. Co-operation is still not known in parts of the province.

Assam.—Scarcity of money owing to floods, bad harvests, and cattle mortality, a certain unwillingness to invest, and inadequacy of staffs for supervising, rendered progress somewhat slow; but the number of societies increased from 301 to 315, and

membership from 16,022 to 17,981. With few exceptions, all showed profit on the year's working. The Jaintia societies are being wound up.

United Provinces.—The improvement in the financial position of the central societies (58) continued; all, with two exceptions, worked at a profit. The number of agricultural primary societies rose from 2,716 to 2,949; that of non-agricultural fell from 188 to 182. The total number of societies rose from 2,962 to 3,189, and membership from 116,283 to 118,864.

Punjab.—Progress, though substantial, was again checked by poor harvests and the inadequacy of the inspecting staff; proposals have been submitted to Government to increase the number of inspectors to 19. The number of societies increased to 3,393, with 148,043 members and a working capital of £1,370,895.

Central Provinces and Berar.—The number of societies increased from 2,297 to 2,685, membership from 44,084 to 60,538, and working capital from £484,088 to £580,612. Of 509 applications for the registration of new societies, 452 were accepted. The registration of 64 was cancelled. The Provincial Bank's deposits and reserve fund increased, and a 4 per cent. dividend was declared; the deposits with it from Central Banks increased from £11,285 to £31,576. One of the most satisfactory features of the year was the growth in strength of the Central Banks.

Burma.—After two years of consolidation, expansion was permitted, and the number of societies rose from 1,490 to 2,251, their membership from 39,134 to 51,356, and working capital from £565,123 to £712,114. The number of cattle insurance societies increased from 63 to 305, an excellent result in view of the extraordinary immunity from serious disease. Agricultural societies increased from 1,252 to 1,685, and with a few exceptions have been affiliated to unions, the number of which increased from 113 to 189. No great progress was made with urban societies. The Upper Burma Central (Provincial) Bank was satisfactorily managed, but showed a loss; the three district Central Banks would have been more successful had paddy prices been higher; the unions performed their well-defined duties well and showed themselves the mainspring of the movement. Colonisation on co-operative lines, though needing more control, made progress. Model byelaws for district associations, where co-operative societies are numerous, were prepared, and two associations were formed. Conferences were held in 14 districts.

Bombay.—The total number of societies increased by 18 per cent.; members by 24 per cent., and working capital by 19 per cent. A departmental conference was held at Poona on 16th March, under the presidency of the Director of Agriculture, and district conferences were also held. The Bombay Central Co-operative Bank emerged with credit from a year of some financial vicissitudes and considerable criticism. The turn-over of all five Central Banks was satisfactory, and steps have been taken to extend their number. Though in Sind the co-operative movement is still backward, the number of societies increased from 19 to 29, and they were soundly managed.

Coorg.—Societies continued to work satisfactorily; no new ones were registered.

(Forests.)

CHAPTER VII.—FORESTS.

(For further details see Statistical Abstract of British India, Tables 45 to 47, 59, 60, and 123.)

General.—The State forests are classified as "reserved," "protected," or "unclassed." The reserved (including leased) forests, in which the control of the Forest Department is most complete, cover an area of about 97,600 square miles. Outside the reserves there are about 142,000 square miles of unclassed forests, including large tracts of unoccupied waste, and 10,400 square miles of protected forests. Forest revenue is raised by royalties on, or by the sale of, timber or other produce, and by the issue at specified fees of permits to graze cattle, or to extract for sale timber, firewood, charcoal, bamboos, canes, and minor forest produce. The gross revenue derived from forests in 1915–16 was £2,074,425, including £437,386 and £1,501,588 received for timber and other produce removed from the forests by Government agency and by consumers (or purchasers) respectively. The charges amounted to £1,242,867, leaving a net revenue of £831,558.

The following paragraphs treat of forest administration in each province for the forest year ending 30th June 1916.

Delhi.—On the Northern Ridge 395 acres were declared a reserved forest; on the Southern the experimental area was extended and maintained, and a complete scheme of afforestation was approved by the Government of India.

Bengal.—The yield of timber decreased to 5,881,098 cubic feet, that of fuel to 12,986,075. Net receipts rose to £38,930. Fire protection and detection of forest offences improved. 39 elephants were captured in the Tista division, 19 in Chittagong.

Bihar and Orissa.—Fire protection succeeded in 96·12 per cent. of the 1,112,147 acres protected, as against 88 per cent. Outturn of timber fell to 1,340,273 cubic feet, that of fuel to 16,414,357. Net revenue rose to £12,526. The percentage of forest under permanent management, 2 per cent. of the province, remains inadequate.

Assam.—The revised treatment of *sal* forests met with disappointing results. Elephant hunting was unusually successful; 279 were caught in the Goalpura-Bhutan Mahals, 124 in the Sibsagar division. The outturn of timber was 4,211,116 cubic feet, that of fuel, 7,544,465.

United Provinces.—Of 2,475,530 acres under fire protection only 89·9 per cent. were successfully protected as against 99·08. The outturn of timber was 8,838,559 cubic feet, that of fuel, 15,027,618. 1,200 gallons of turpentine and 1,300 maunds of rosin were exported to Java. The surplus revenue rose to £77,284.

Punjab.—The outturn of timber was 9,518,885 cubic feet, that of fuel, 29,822,252. Fire protection was extended to 687,103 acres, but percentage of area burnt dropped from 4·92 to 2·45. Net revenue rose to £53,015.

North-West Frontier Province.—36·5 of the fire-protected area was burnt in 1914–15, the latest year for which information is available, as against ·3 in the previous year. The outturn of timber and fuel decreased; receipts and surplus decreased.

Central Provinces.—The outturn of timber fell to 7,154,911 cubic feet, that of fuel to 25,672,903. Net revenue again increased, reaching £101,715. Forest offences increased.

Burma.—The aggregate area of forest reserves rose to 28,566 square miles, that of unclassed fell to 113,755. A cyclone did much damage in Arakan. Teak planting was carried out in Arakan and Katha divisions. 315,239 tons of teak were extracted.

Madras.—The 76 forest panchayats managing about 56 square miles of land were increased to 147 managing nearly 210, and a Forest Village scheme was also started to encourage activity in the protection of the forest. There was a slight increase in forest offences, and a considerable rise in the percentage of failure of fire protection. The outturn of timber declined to 3,933,039 cubic feet, that of fuel to 19,874,951 cubic feet. Revenue and expenditure decreased and surplus increased.

Bombay.—There was a substantial increase in the forest revenue of the Southern Circle, and a smaller increase in that of the Northern Circle. In the Central Circle and Sind revenue decreased. The area of forest burnt decreased in the Northern and Southern Circles, but increased in the Southern and Sind Circles.

Coorg.—Efforts to promote natural and artificial reproduction of teak and sandal met with noteworthy success. Revenue and surplus were the highest on record. 380 tons of sandalwood were sold for £22,953, the highest price per ton obtained, except in 1913–14.

CHAPTER VIII.—MINERAL PRODUCTION AND MINING.

For further details see Statistical Abstract for British India, Table 218; *also Quinquennial Review of Mineral Production for the years* 1909 *to* 1913 *and Report for* 1915 *in Records of Geological Survey, Vols.* XLVI. *and* XLVII.)

Mineral Production.

General.—The value of the total production rose by 7 per cent. from £9,945,636 to £10,649,512. Only a few mining industries were adversely affected by the war, and many profited by enhanced prices. The production of coal was valued at £3,781,064, of gold at £2,369,486, petroleum at £1,256,803, manganese ore at £929,546, and salt at £660,254. No other mineral exceeded half a £ million.

Coal.—Production increased to 17,103,932 tons, of which 4,975,460 were raised in Bengal and 10,718,155 in Bihar and Orissa, the Jharia coal-field contributing 53·44 and the Raniganj 32·07 per cent. of the total. The prices at the pit's mouth in Bengal and Bihar and Orissa were 4*s.* 6⅛*d.* and 3*s.* 11½*d.* respectively. Exports rose from 577,944 to 751,801 tons, of which Ceylon took 554,885, and the Straits Settlements 99,363. The total number of persons employed rose to 160,086.

Gold.—Production rose from 607,388 to 616,728 ounces, of which 571,199 came from Mysore.

Iron Ore.—The production fell from a little under 442,000 tons to about 390,000, mostly derived from Bihar and Orissa. Manufactures amounted to 343,783 tons, and 2,658 tons of ferro-manganese were produced.

Petroleum.—Production, which had fallen by 7 per cent. in 1914 to about 259 million gallons, rose to a little over 287 million. For the first time an appreciable amount was returned from the Punjab, borings by the Attock Oil Company in the newly discovered field at Khaur producing ¼ million gallons.

Manganese.—This was one of the minerals adversely affected by the war, and production decreased from 683,000 to 450,000 tons, or 34 per cent.; the quantity exported falling from about 538,000 to less than 420,000 tons, or only a little more than half the quantity exported in 1913.

Salt.—Production rose from 1,348,225 to 1,745,521 tons, or nearly 30 per cent. Of this 179,792 tons was rock salt.

Saltpetre.—Production rose from 15,489 to 18,098 tons. Exports increased 46 per cent. About 70 per cent. of the quantity exported went to the United Kingdom.

Mica.—Production decreased from 40,506 cwt. to 27,139 cwt., or about 30 per cent. 22,195 cwt. were produced in Bihar and Orissa.

Wolfram.—The output increased from 2,326 to 2,645 tons. Steps taken by Government to develop the mines at Tavoy, in Burma, the chief source of the world's supply, are expected greatly to increase outturn.

Rubies.—The output of the Burma Ruby Mines decreased from a little under 305,000 carats, valued at £43,000, to a little over 251,000 carats, valued at £36,300*l.*

Other Minerals.—The production of lead, copper, silver-lead ore, and tin ore increased. The monazite industry at Travancore was found to contain considerable enemy interests, which were eliminated, and, after a period of disorganisation, its working is now placed on a satisfactory basis.

Mining Concessions.

The number of concessions granted in Government lands fell from 363 in 1914 to 307 in 1915 (261 prospecting and 46 mining leases).

Rights in respect of petroleum and of certain metals of importance in the manufacture of armaments may be granted only to British subjects.

In practically all Native States the mineral rights belong to the respective rulers, and concessions are granted for mining and prospecting under rules that involve a certain amount of supervision by the Government of India.

Inspection of Mines.

The Indian Mines Act, 1901, applies to the whole of British India. The number of mines coming under the Act in 1915 was 1,121, employing 180,088 persons. There were 163 fatal accidents causing 188 deaths, as against 152 causing 191 deaths in 1914. There were 34 prosecutions in which 29 persons were convicted.

(Government and Industrial Development.)

CHAPTER IX.—MANUFACTURES.

(For further details see Statistical Abstract for British India, Tables 214 to 217.)

Government and Industrial Development.

The movement for promoting home industries, known as the *swadeshi* movement, has, in its legitimate forms, received official support. Measures have been taken to restore and develop technical trades and industries. Scholarships for the higher commercial and technical training of Indians abroad are offered by the Government and by private associations. Industrial conferences are held, some convened by the Local Governments, and others non-officially, such as the annual Indian Industrial Conference.

It had been decided to appoint a commission to consider the question of the expansion and development of Indian manufactures and industries, and its composition was in process of completion at the close of the year under review.

Large Industries.

Cotton and jute are by far the most important of the larger industries. The following figures (for British India only) show their rapid progress in recent years.

Cotton Mills.—Of the 238 cotton mills at work in British India in 1915-16 Bombay City contained 86 and Ahmedabad 62. The number of persons employed was 271,913. The industry is to a large extent in the hands of Indians, and the capital is almost wholly rupee capital. In 1911–12 trade revived after temporary depression, and production in the next two years was at a high level. A further depression began at the close of 1913, and several mills stopped in 1914. The outbreak of war increased the difficulties of the trade, especially in regard to dyes, chemicals, and coal supply, and some of the Bombay spinning mills went into liquidation in September 1915.

Year.	No. of Mills.	Paid-up Capital.	Looms.	Spindles.
		000 £		000
1908–9 -	212	12,604	69,791	5,624
1912–13 -	241	13,776	85,676	6,101
1913–14 -	239	11,797	90,268	6,209
1914–15 -	233	12,270	96,869	6,209
1915–16 -	238	12,147	101,017	6,263

Although the trade in twist and yarn increased by 20 per cent. in quantity and 10 per cent. in value in 1915-16, it was still much below that of 1913–14. Bombay Presidency possesses 70·1 per cent. of the mills, 70·6 per cent. of the spindles, and 78·6 per cent. of the looms; it contributed 70·6 per cent. of the total output of yarn as against nearly 73 per cent. in 1914–15, and accounted for nearly 95 per cent. of the total exports abroad, the remainder being supplied by Madras (3½ per cent.) and Bengal (1½ per cent.). The outturns of yarn and of woven goods were the highest ever recorded. The exports of cotton piece goods increased by 69 per cent. in quantity and 55 per cent. in value. Cheap cotton blankets, &c. were manufactured during the year by Indian mills to replace those formerly imported from Germany.

The outturn of yarn and cloth in recent years in British India is shown in the table below:—

Year.	Counts Nos. 1 to 25.	Counts above No. 25.	Total Output of Yarn.	Grey Cloth.	Other kinds.	Total Output of Cloth.
Average:	Million Lbs.	Million Lbs.	Million Lbs.	Million Lbs.	Million Lbs.	Million Lbs.
1901–2 to 1905–6 - - -	537·4	39·9	577·3	109·9	25·0	134·9
1906–7 to 1910–11 - -	555·4	53·6	609·0	154·1	40·0	194·1
Year 1911–12 - - - -	531·7	59·2	590·9	193·0	59·1	252·1
„ 1912–13 - - - -	589·1	61·5	650·6	196·1	71·5	267·6
„ 1913–14 - - - -	582·7	61·5	644·2	188·5	67·9	256·4
„ 1914–15 - - - -	557·1	57·9	615·0	198·3	59·9	258·2
„ 1915–16 - - - -	624·5	58·7	683·2	249·6	81·2	330·8

Iron and Steel Works.—The development of the iron or steel industry practically began in 1875 by the Barakar Iron Works Company, formed into the Bengal Iron and Steel Company, Limited, in 1889, whose operations have developed and progressed rapidly. The Tata Iron and Steel Company, Limited, floated in 1906, have gone even further in the development of the industry. Prior to 1915 the output of steel from these works was converted into rails and structural sections to the British standard specification; recently over 85 per cent. of the output has been commandeered for

munition steel. The Indian production is said to be sufficient to supply the present requirements of India and to leave a fairly large tonnage available for the markets of Australia and the Far East, where it is beginning to command favourable prices. In 1915 the Tata Company produced 154,509 tons of pig-iron and 76,355 tons of steel (including 16,817 tons of steel rails), while the Bengal Company produced 87,285 tons of pig-iron and 25,634 tons of iron castings. The total production rose from 504,564 to 584,775 tons. In October 1915 one of the Tata Company's blast furnaces was put on ferro-manganese and produced 2,658 tons by the end of the year.

Jute Mills.—While the cotton mills are mainly situated in Western India, jute mills are nearly all concentrated in the vicinity of Calcutta, and are mostly in the hands of British firms. The jute industry has enjoyed almost uninterrupted and increasingly rapid progress, the number of looms and spindles having nearly doubled in the last decade. The demand for sandbags, &c., in 1915–16, brought jute a year of unique prosperity, and the mills increased production from 10 to 20 per cent. The number of persons employed was 254,143.

Year.	No.	Paid-up Capital.	Looms.	Spindles.
		000£	000	000
1903–4 -	38	4,954	18	377
1908–9 -	56	7,413	29	607
1912–13 -	61	7,977	34	709
1913–14 -	64	8,137	36	744
1914–15 -	70	8,053	38	796
1915–16 -	70	8,158	40	812

General.—There were 5 woollen mills at work at the end of 1915, containing 1,104 looms and 38,876 spindles, and producing goods valued at about £763,200 for the year. The growth of the industry is slow, but steady. There were 9 paper mills, producing during the year about 30,400 tons of paper, valued at £597,466. There were 18 breweries, which produced 2,532,933 gallons of beer. Silk filatures are found chiefly in Bengal and indigo and lac factories in Bihar and Orissa. Flour mills are most numerous in the Punjab, Bombay, and Bengal, and sugar factories in the United Provinces, Madras, and Bihar. Rice mills and saw mills (for teak) are numerous in Burma. They are mainly in European hands. Printing presses are numerous in Bengal, Bombay, and Madras. Iron and brass foundries (including engineering workshops) numbered 30 in Bengal and 22 in Bombay in 1914.

Factory Legislation and Inspection.

Act XII., of 1911, regulates the working of factories in India. It extends to all factories employing 50 hands and upwards in any part of the year, and may by order of any Provincial Government be extended to factories employing 20 hands and upwards. The Act was operative throughout British India in 1914 (the latest year for which information is available). A commendable effort was made by all concerned to ameliorate the conditions of factory life, the inspecting staff receiving the active co-operation of mill managers and agents. The staff of factory inspectors has been recently increased to 14. A separate staff is appointed for the inspection of steam boilers. The total number of factories returned in 1914 as registered under the Act was 2,936, including those belonging to the State and local bodies. The average number of hands employed daily was 951,000 including 144,000 women and 60,000 children. Of the 4,929 accidents reported most were not serious and many were not due to contact with machinery. There were 162 convictions for breaches of the Act, of which 56 were in the Central Provinces and Berar, 24 in Bombay, and 30 in the Punjab. The offences were chiefly the irregular employment of women and children and the failure to send in the prescribed returns, &c. The sanitary condition of the factories and the health of the operatives were generally good.

Patents and Designs.

A new Patent and Designs Act was passed in March 1911, providing a more effective procedure in regard to patents and reducing the fee for the registration of designs. It gives better protection to inventor and public. Of 445 applications in 1915 for leave to file specifications 334 were accepted. Of these applications 70 came from Indians and 105 from other residents in India. The subjects of the patents applied for in 1915 were chiefly chemical appliances and preparations, railways, electric contrivances and bicycles. Applications for registering copyright in designs fell from 1,440 to 904.

CHAPTER X.—TRADE.

(Detailed information regarding the Trade of British India is annually furnished in three Parliamentary Bluebooks: Tables of the Trade of British India, Review of the Trade of India, and Statistical Abstract for British India, Tables 134 to 172.)

Foreign Seaborne Trade.

The foreign seaborne trade of India has greatly increased during the last 15 years, as the marginal figures relating to private merchandise show (values in thousands of pounds at 15 rupees to the pound). In 1914–15, owing to the war, there was a decline as compared with 1913–14 of 24·7 per cent. in the imports and 27·3 per cent. in the exports. In the year under review this had still further increased to 28·3 and 21·2 respectively as compared with 1913–14. But whereas re-exports had in 1914–15 declined by 12·2 per cent., in 1915–16 they were 3·6 per cent. higher than in 1913–14. The total trade (including re-exports, treasure, and Government stores) amounted to £238 millions as against £236 millions in 1914–15, and £327 millions in 1913–14, when the highest figure was attained.

Year.	Imports.	Exports of Indian Merchandise.
Average—	000£	000£
1900–1 to 1904–5 -	55,745	87,336
1905–6 „ 1909–10 -	77,281	111,874
For the year 1910–11 -	86,236	137,081
„ 1911–12 -	92,383	147,879
„ 1912–13 -	107,332	160,899
„ 1913–14 -	122,165	162,800
„ 1914–15 -	91,953	118,320
„ 1915–16 -	87,560	128,356

Trade and the War.—Trade adjusted itself successfully to war conditions. There was no recurrence of the difficulties caused by its outbreak; railway earnings, a valuable indication of the general movement of trade, increased by 5 per cent., and the exchange position was satisfactorily maintained, in spite of many anxieties and the ill-effects upon trade prosperity of a not very favourable monsoon. The necessity of restricting and controlling trade to the advantage of the Allies by means of Government intervention increased rather than diminished.

Principal Imports and Exports.—The marginal table shows the values of the chief articles of merchandise imported and exported during the last two years. The expansion in the export trade compares very favourably with the condition of the import trade. While the increase in the exports of jute, raw hides, and skins is noteworthy, and those of tea, gunny bags and cloth, and raw wool reached a record figure, India's import trade declined more than that of any other country for which figures are available, with the exception of Russia.

Imports.	1914–15.	1915–16.
	000£	000£
Cotton goods (including twist and yarn).	32,666	28,850
Metals - - - -	9,170	7,434
Sugar - - - -	7,015	11,079
Railway material - -	6,722	2,812
Machinery and millwork -	4,027	3,185
Mineral oils - - -	2,938	2,676
Hardware - - -	1,707	1,587
Woollen goods - -	1,256	639
Silk manufactures - -	1,293	1,839
Provisions - - -	1,405	1,408
Liquors - - - -	1,218	1,249
Spices - - - -	1,146	1,248

Exports (Indian Merchandise).	1914–15.	1913–14.
	000£	000£
Cotton, raw - - -	22,326	16,619
Rice - - - -	11,439	10,303
Jute, raw - - -	8,607	10,428
„ manufactures - -	17,213	25,319
Seeds - - - -	9,769	6,748
Wheat and wheat-flour -	6,159	6,374
Hides and skins - -	8,385	10,260
Tea - - - -	10,352	13,321
Cotton manufactures -	5,340	6,404
Wool, raw - - -	1,579	2,527
Lac - - - -	1,070	1,145
Coffee - - - -	1,102	658

Trade by Countries.—Imports are classified according to the countries whence they are consigned to India, and exports according to the countries to which they are consigned, *i.e.*, to the countries of final destination so far as known.

The share of the United Kingdom in the total trade of 1913–14 in private merchandise was 40·7 per cent.; Italy, 2·3; Russia, ·6; of France, 4·8; of the United States, 6·2; of Belgium, 3·8; of Japan, 6·4. The corresponding percentages for 1915–16 were: United Kingdom, 46·6; Italy, 3·4; Russia, 1·7; France, 3·5; United States, 8·8; Belgium, ·1, and Japan, 7·9. Taking imports and exports separately for 1915–16, 59·4 per cent. of the import trade (exclusive of Government stores) and 38 per cent. of the export trade were conducted with the United Kingdom.

Treasure.—The net import of gold, which fell from £15,550,000 in 1913–14 to £5,093,333 in 1914–15, was changed into a net export of £773,333. Only three times in the previous 40 years has there been a net export of gold from India. Of the total exports the United Kingdom received £2,026,666 and Japan £2,120,000. The net import of silver fell from £5,914,000 to £3,220,000.

Shipping and Freights.

During 1915–16 the number of steamers and sailing vessels with cargoes and in ballast which entered from and cleared to all countries was 8,634, with a tonnage of 12,152,302 as compared with 7,960 with a tonnage of 12,857,885 in 1914–15. The figures do not include the large number of transports hired by Government owing to the war. Of the total, 98 per cent. was steam tonnage. Tonnage under the British flag represented about 83 per cent. of the whole. Of foreign nationalities Japan had the largest share, followed (in order of tonnage) by Norway, Holland, Italy, Russia, and Sweden.

Freights, which were low when war broke out, by the end of March 1916 were about 12 times the pre-war rates and more than twice the rates prevailing in March 1915.

Land Frontier Trade.

The statistics of land frontier trade shown in the margin include a great deal of trade that is not strictly foreign. Owing to difficulties of registration accurate returns are impossible, but there is a considerable trade with Afghanistan, Nepal, Western China, Tibet, Bhutan, and Siam. The principal exports from India are cotton yarn and manufactures (chiefly foreign), metals, and provisions; and the chief imports into India rice and other grains, provisions, fruits, living animals, wool, hides and skins, oilseeds, and timber.

Year.	Imports.	Exports.	Total.
	000£	000£	000£
1912–13	7,660	6,986	14,646
1913–14	8,013	6,280	14,293
1914–15	7,627	6,327	13,954
1915–16	7,893	6,333	14,227

Joint Stock Companies.

(*See also Statistical Abstract for British India, Tables* 212–3.)

Partly owing to the war, and partly to the stringent provisions of the new Indian Companies Act of 1913, which came into force in April 1914, there had been a great decline in the formation of companies in 1914–15, only 107 with an authorised capital of £2,630,000 being registered in that year as compared with 345 with a capital of £44,270,000 in 1913–14. In 1915–16 the number of new companies registered increased to 126, with an authorised capital of £4,710,633. Since the outbreak of war there has been a steady increase both in the paid-up share capital and in the debenture capital of companies registered under the Indian Companies Act (VII. of 1913).

(*Note.*—Statistics of the working of the Merchandise Marks Acts hitherto given will be found in the *Statistical Abstract for British India, Table* 183.)

CHAPTER XI.—PUBLIC WORKS.

General.

The operations included under the head of "Public Works" comprise Railways, Irrigation, and "other Public Works (Civil)." The Railway Department is under the control of the Government of India, exercised mainly through the Railway Board. The establishment employed on irrigation and on other public works (chiefly buildings and roads) is subdivided according to provinces, and controlled by the local administrations, in subordination to the Supreme Government. The strength, on 30th June 1916, of the superior engineer and upper subordinate establishments was 191 and 64 respectively for railways, and 761 and 1,197 respectively for irrigation, buildings, and roads, &c.

The annual expenditure on public works is met partly from money raised by loan and partly from the ordinary annual revenues. Borrowed money is expended mainly on railways and the large irrigation works, which are expected to yield sufficient net revenue to cover interest on the capital expended on them.

Railways.

(*For further details see Annual Administration Report on the Railways in India and Statistical Abstract for British India, Tables* 44 *to* 47, 68–9, 71, 74 *to* 78, 124 *to* 132.)

Finance.—In the financial year 1915–16 there was a net capital expenditure on railways of £4,777,182 for construction, rolling stock, &c. Of the permanent public debt on 31st March 1916, £234,360,133 was on account of railways. The marginal table, taken from the Finance and Revenue Accounts of the Government of India, shows the railway revenue and the expenditure charged to revenue for 1915–16. The net gain to the State was £4,075,438. Expenditure includes all charges for interest on capital outlay. According to actuarial calculations the figures for "Annuities in purchase of railways" in 1915–16 may be divided into interest £2,428,265 and capital redeemed £929,426. The figures also include charges for land required by the companies, and for miscellaneous items, such as headquarters establishment and surveys.

—	India.	England. (Sterling converted at £1=Rs. 15.)	Total.
Revenue.	£	£	£
Railways—			
State railways—(Gross traffic receipts)	38,173,243	2,950	38,176,193
Deduct:			
Working expenses	*19,686,677*	—	*19,686,677*
Surplus profits paid to companies	*603,827*	—	*603,827*
Net receipts	17,882,739	2,950	17,885,689
Subsidised companies—(Government share of surplus profits and repayment of advances of interest).	19,892	71,522	91,414
Total £	17,902,631	74,472	17,977,103
Expenditure.			
Railway Revenue Account—			
State Railways—			
Interest on debt	4,266,440	3,657,230	7,923,670
Annuities in purchase of railways	—	3,357,691	3,357,691
Sinking funds	—	208,893	208,893
Interest chargeable against companies on advances.	17,703	81,250	98,953
Interest on capital deposited by companies.	58,736	2,073,126	2,131,862
Subsidised companies—			
Land, &c.	162,709	—	162,709
Miscellaneous railway expenditure	17,887	—	17,887
Total £	4,523,475	9,378,190	13,901,665

The aggregate gross earnings of *all* Indian railways, including steamboat service and suspense items, but excluding indirect charges, amounted to £43,106,933, the working expenses to £21,946,333, and the net earnings to £21,160,600. The return on the total capital outlay on open lines, amounting on 31st March 1916 to £353,321,933, was 5·99 per cent. as against 5·33 per cent. for 1914–15.

The length of line open on 31st March 1916 was 35,833 (of which 26,320 miles represented State lines), an increase of 548 miles since 31st March 1915. The mileage under construction or sanctioned for construction at the end of 1915–16 was 2,374. The number of passengers carried in 1915–16, 476 millions, and the tonnage

of goods, 89 millions, showed an increase due to the revival of traffic and the recovery of trade after the outbreak of war.

Important Works completed and in progress.—During the year it became necessary to effect all possible retrenchment instead of endeavouring to utilise to the full the Budget allotment of £8 millions which had originally been granted. As a result, a number of works were suspended or retarded, renewals of permanent way were generally reduced, and replacements of rolling stock severely curtailed. Large quantities of rolling-stock and permanent-way materials were supplied from India to meet military requirements in the various theatres of war. Some 350 civil officers and over 2,000 subordinates have also been released for military service. Full particulars of works completed and in progress during the year, and of projects for new lines, are given in the Administration Report on Indian Railways for 1915–16. A few details of the principal works of the year are given below.

Of the lines opened for traffic, three only were constructed from funds supplied under the Government Railway Programme, viz., the Bokharo-Ramgarh extension of the Bengal Nagpur Railway, 21¾ miles, to serve the Bokharo-Jherria and Bokharo-Ramgarh coalfields, the Samastipur-Khagaria chord of the Bengal and North-Western Railway, 53 miles, and the Guntur-Tenali chord of the Madras and Southern Mahratta Railway, 16 miles. Other lines constructed from capital raised in India included the Podanur-Pollachi Railway at the cost of the Coimbatore District Board, the Sialkot-Narowal, Mandra-Bhoun, Jullundur-Mukerian, Phagwara-Rahon and Murtajapur-Yeotmal lines under Branch Line Terms, and branches of the Jodhpur-Bikaner and Baroda State Railways by the Native States concerned. The hill section of the Assam-Bengal Railway was badly damaged by floods, but steps were taken for the necessary repair work to be carried out as expeditiously as possible.

Rolling-Stock.—Additions during the year were considerably curtailed owing to the restrictions on capital expenditure.

An "all steel" passenger train was brought into use on the Great Indian Peninsula Railway. The satisfactory results obtained with superheater engines has decided many railway administrations to fit all engines for main-line work with superheaters. Final trials with oil fuel are now in progress.

Accidents.—The number of passengers killed during 1915–16 was 247, and the number injured 821. Of railway servants 433 were killed and 796 injured.

Railway Staff.—The total number of railway servants at the end of 1915–16 was 626,580, including 7,273 Europeans, 10,412 Anglo-Indians, and 608,895 Indians.

Branch Line Companies.—The Branch Line Terms are now well known and have led to satisfactory results throughout India. The prevailing financial stringency had not in any material degree adversely affected the business of these companies.

District Boards' Lines.—The District Boards of Madras Presidency continue to make greater use of their facilities for borrowing. No other province has, however, so far embarked on this form of local enterprise or enacted legislation for the levy of a railway cess.

Irrigation.

(*For further details see Statistical Abstract for British India, Tables* 44–7, 68–9, 71, 74 *to* 76, 119, *and* 133.)

Irrigation works may be roughly divided into canals and tanks, though these are frequently combined. Canals have been utilised on the largest scale and with the most successful results in the United Provinces, the Punjab and Sind, and the deltas of the large rivers in the Madras Presidency. Tank irrigation is the common system in Madras, Bombay, and the Central Provinces.

Financially considered, irrigation works are classed as "major" or "minor," the former class including those undertaken from borrowed money, in the expectation that they will yield sufficient net revenue to cover the interest on the capital expended. It also includes the works classed as famine protective, which are constructed not from borrowed funds, but out of revenue, mainly from the annual grant for famine relief and insurance. The capital expenditure on construction not charged to revenue in 1915–16 was £812,953. The expenditure on construction charged to the famine grant was £500,193. This was supplemented by a further grant from revenue, which amounted to £12,632 in 1915–16. The cost of constructing the "minor" works, as well as the annual expenditure on their working and maintenance, are met from ordinary revenues, and for most of these works distinct capital and revenue accounts are not kept.

(Irrigation.)

According to the Finance and Revenue Accounts of the Government of India the revenue from irrigation works in 1915–16 was £4,779,079, including £2,737,991 for direct receipts from "major" works, £1,773,720, portion of land revenue due to irrigation, and £267,368 from "minor" works and navigation. The expenditure charged to revenue was £3,721,096, including £1,374,920 for working expenses, £1,453,350 for interest on debt, the revenue grant of £12,632 for protective works, and £822,194 for minor works and navigation. Of the permanent public debt on 31st March 1916 £42,456,326 was on account of irrigation.

The area irrigated in 1915–16 by all classes of irrigation works for which capital and revenue accounts are kept was 17,340,633 acres, but the total area irrigated by all Government irrigation works was approximately 25,250,000 acres. The capital outlay (direct and indirect) to the end of the year was £37,472,116 on productive major works, £6,091,150 on protective major works, and £2,851,300 on minor irrigation works for which both capital and revenue accounts are kept. The net receipts on capital outlay for these three classes were 8·07, 0·49, and 7·58 per cent. respectively.

There are great differences in the financial success of the irrigation works in the various provinces. These are due to physical conditions, such as surface, soil, climate, and the absence or presence of large rivers with a permanent supply of water, as well as to differences in the character and habits of the people. There are also considerable differences in the manner in which the irrigation revenue is assessed and collected, which have an important bearing on the financial success of the works.

Efforts have been made to organise navigation services on some of the larger irrigation canals, without much success. A few canals which have been constructed for navigation purposes only are dealt with below.

The following are the chief features of the irrigation operations for 1915–16 in the different provinces :—

Bengal.—The major works in Bengal are the Midnapur Canal, for irrigation and navigation, and the Hijili Tidal Canal for navigation only. These canals made a slight profit in 1915–16, but the minor works for navigation purposes were, as usual, worked at a loss. There was an increase of traffic on account of the better outturn of crops in the area served by these works.

Bihar and Orissa.—In 1915–16 the Orissa and Sone canals, both of which are major productive works, for irrigation and navigation, irrigated 816,000 acres, a decrease of 92,500 acres as compared with 1914–15, due to the seasonable rainfall. The net revenue amounted to £83,333, but was insufficient to cover the interest charges, which exceed £120,000. While the Sone canals are now beginning to pay off the accumulated interest, the Orissa canals are never likely to do so. The Tribeni and Dhaka canals, protective irrigation works, recently completed, irrigated 60,700 acres, a decrease of 26,600 acres as compared with 1914–15. The minor works include a navigation canal, the Orissa Coast Canal.

Bombay, including Sind.—The deficient rainfall in Gujarat seriously affected the supply of water in the Hathmati and Khari systems and the area irrigated was only a tenth of the decennial average. In Sind the inundation of the Indus was exceptionally low. In Bombay proper, irrigation was less than usual owing to favourable rains. The Godavari canals and the Pravara Right Bank Canal were practically completed. Good progress was made on the Pravara Left Bank Canal and the Nira Right Bank Canal.

Burma.—The year was a prosperous one from an irrigation point of view; the area irrigated increased, the net revenue rose from £20,000 to £66,700, and the return on capital from 1·31 to 3·7 per cent. Good progress was made on the Ye-u canals. The working of the navigation canals yielded a small profit. The Sittang-Kyaikto Canal was breached by erosion and abandoned. Progress on the Twante Canal continued, though the work has been somewhat delayed by the transfer to Mesopotamia of one of the dredgers employed on it.

Central Provinces and Berar.—The monsoon was favourable, but the area under irrigation slightly increased. The main canal of the Mahanadi project was pushed on towards completion, and irrigation operations from this work were commenced. The Weinganga Canal was approaching completion at the end of the year.

Madras.—The outlay incurred on irrigation works amounted to over £540,000, a decrease of £47,000 on the previous year, but the total area irrigated by all classes of works increased by about 200,000 acres, with a consequent increase in revenue of £78,000. The expenditure on capital account was incurred mainly on the Mopad and

Bhavanasi Protective Works and on the Godavari and Kistna delta systems, the Kurnool-Cuddapah Canal, the Toludur project, and the Cauvery delta system. Progress continued to be made with the tank restoration scheme.

North-West Frontier Province.—Irrigation generally was restricted by want of water owing to the dryness of the year. The total area irrigated, however, showed an increase, mainly owing to the development of operations on the Upper Swat River Canal, which showed an increase in the area served from 7,304 to 78,506 acres. Construction work, though somewhat restricted, was continued on the Upper Swat River Canal, mainly on the Benton tunnel through the Malakand range.

Punjab.—The area irrigated was 8,884,811 acres, a slight decrease on the record of the previous year, due to drought and abnormally low supplies in the rivers. The net revenue from major works was £1,577,219, representing a return of 10·9 per cent. on capital outlay. The Upper Bari Doab, Lower Chenab, Lower Jhelum and Sidhnai Canals, and the Upper Sutlej Inundation Works continued to show excellent results. The year witnessed the realisation of the great Triple Canal Project, the Upper Jhelum Canal, after an unforeseen delay, being opened for irrigation. No irrigation was, however, done by this canal during the year, which accounts to some extent for the deficit in the income anticipated. A rapid expansion is, however, now expected. About £14,460,000 of Imperial funds has now been invested in the Punjab Major Canals.

United Provinces of Agra and Oudh.—The capital expenditure for the year exceeded £180,000. Progress was made with the Gorai Canal and with the construction of the new weir for the Ganges Canal at Bhimgoda. Under protective works, the Ghori Canal, and the Majhgawan tank were practically completed. The financial results of the works in operation continued to be satisfactory. The important scheme for the Sarda-Kichha feeder and its adjunct the Oudh Canal was under consideration. The estimate for the former amounts to £1,333,000.

Buildings and Roads and other Public Works (Civil).

(*For further details see Statistical Abstract for British India, Tables* 44–7 *and* 74.)

This section embraces all operations of the Public Works Department other than Railways and Irrigation. It includes the extension and maintenance of the road system, the construction and repair of government buildings and many miscellaneous works of public improvement, such as lighthouses, harbours, embankments, boat bridges, ferries, and the water supply and sanitation of towns. The extension of local self-government has thrown a large portion of the smaller class of public works into the hands of the Local Boards, which generally maintain their own establishments, but in the case of any works of unusual difficulty have recourse to the professional skill of Public Works officers.

The operations of this branch are classed primarily under the head of Civil Works, the expenditure on which is chiefly met from provincial resources. The expenditure for 1915–16 amounted to £5,450,464, of which £822,182 was Imperial and £4,578,138 Provincial, while £50,144 was for expenditure in England. In addition £33,780 was expended by Civil officers from Imperial Funds. Receipts amounted to £304,035.

The following short account of Civil Works shows the most important works carried out during 1915–16 in the different provinces.

Delhi.—The capital expenditure on the new Imperial Capital during 1915–16 amounted to £331,274, and was incurred mainly on preliminary work and on buildings and communications in progress. The total expenditure up to the end of the year was £1,258,655.

In Delhi Province the expenditure from all sources amounted to £116,550, and covered the construction of a Durbar Memorial pillar, new police stations in the city and in the new cantonment, improvements to the Government of India camps, maintenance of water supply in the temporary capital, and other miscellaneous public improvements.

Bengal.—The salt *golas* and post office at Chittagong were practically completed. Work was in progress on a number of administrative offices, courts, jails, police barracks, colleges and schools, hospitals, &c. The improvement of many roads in the Duars was also in progress. A commencement was made in preparing the lay-out of the Victoria Memorial Gardens, Calcutta.

Bihar and Orissa.—In connection with the project for the new capital at Patna, the High Court building was completed and considerable progress was made with the construction of Government House and the Secretariat. A number of residences and

(Buildings and Roads and other Public Works (Civil)).

quarters for officers and clerks was also completed. A Judge's Court at Purulia, Jail Hospitals at Daltonganj and Ranchi, and a Training College at Bankipore, were completed. Progress was made with the Asylum for European lunatics at Kankey.

Assam.—The total expenditure on provincial civil works during the year amounted to £238,000. Of this £48,000 was spent on new buildings. New roads and bridges cost £32,600, while £84,000 was spent on the maintenance of existing communications.

Bombay.—The total expenditure during 1915–16 was £815,489. The new Custom Houses at Bombay and Karachi were still in progress at the end of the year. The Prince of Wales Museum and the Royal Institute of Science were practically completed. £50,000 were spent on educational buildings, and £30,000 on medical buildings. Communications involved an outlay of £142,000, somewhat less than in the previous year. The expenditure on miscellaneous public improvements amounted to £43,800.

Burma.—Expenditure decreased by £100,000 as compared with 1914–15. The balance of the special Imperial grant was devoted to road improvements. The demand for wolfram, created by the war, necessitated the urgent improvement of roads in the Tavoy and Mergui districts on which large sums were spent. An Advisory Committee was appointed to advise on the whole question of communications in Burma, including waterways.

Central Provinces and Berar.—Activity continued in the Public Works Department though the expenditure decreased from the record figure of 1914–15 by £67,000. Large sums were spent on buildings for almost every department of the administration. Communications accounted for £188,000. Steady progress was made with the water-works and drainage schemes undertaken by the Public Works Department for municipalities.

Madras.—Works in progress during the year included the Forest College, Coimbatore, which was completed at a cost of £40,500, a Stationery Office at Madras, an Engineering College at Guindy, a Technical Institute at Madura, and Collectors' offices at Madura and Vellore. The Kodaikanal Ghat road was completed at a cost of £44,000, and a bridge over the Indravati river at a cost of £36,000.

North-West Frontier Province.—The expenditure for the year was £175,600, a reduction of £33,754 as compared with 1914–15. Construction work was diminished owing to financial stringency. Improvements to roads in the Hazara district and to the Thal-Parachinar road continued.

United Provinces.—The actual expenditure during the year fell to £876,000. The principal buildings under construction were the new High Court at Allahabad, Civil Courts at Budaun, and several hostels and educational buildings. A new bridge was completed over the Suswa. A complete project was prepared for a hydro-electric scheme at Naini Tal.

Punjab.—In the year under review financial stringency necessitated considerable reductions in expenditure. The King Edward Memorial and the Veterinary College at Lahore were completed and opened by the Viceroy. The Simla Hydro-Electric Scheme was completed at a cost of £127,000, and its financial returns show encouraging results. £18,800 was spent on new roads and bridges and £87,000 on the maintenance and repair of existing communications.

CHAPTER XII.—POSTS AND TELEGRAPHS.

(For further details see Statistical Abstract for British India, Tables 45 to 47, 90 to 94, and 95 to 97.)

The amalgamation from 1st April 1914 of the Indian Post Office and Telegraph Departments has resulted in greater efficiency. Receipts and charges on account of Posts and Telegraphs for 1915–16, as shown in the Finance and Revenue Accounts, were £3,787,478 and £3,149,680 respectively; net revenue was £637,798.

Posts.

Extent of Postal Operations.—At the close of 1915–16 there were 19,328 post offices, 49,684 letter-boxes, 95,746 postal officials, and 157,657 miles of mail lines, showing increases as compared with 1914–15 of 170, 394, 313, and 684 respectively. During the year 1,051 million articles (including 25½ million registered articles) were posted, an increase of about 8 millions as compared with 1914–15. Letters numbered 448 millions, postcards 478 millions, and parcels nearly 13 millions. Over 3 million articles were insured; £8,617,200 was collected on 9,653,000 value-payable articles.

Alterations in Postal Arrangements during 1915–16.—The new route *viâ* Talai-Manaar for the transmission of mails between India and Ceylon was adopted on 1st June 1915, and the mail steamer service between Tuticorin and Colombo abolished. Owing to the shortage of steamers, sailings between Karachi and Basra, Rangoon and Maliwun, Moulmein and Penang, and Chittagong and Rangoon were discontinued at different dates, and provisional arrangements for the delivery of mails made. Mail communication with Bulgaria was suspended. The letter mail service with the Bismarck Archipelago, Samoa, and the territory formerly known as German South-West Africa was resumed.

Foreign Correspondence.—The usual statistics were not kept owing to the dislocation of the foreign mail service. The number of foreign parcels sent and received rose from 793,733 to 1,011,222, more than half being exchanged with the United Kingdom.

Money Orders.—The number of inland and foreign money orders, ordinary and telegraphic, issued was over 32 millions, and their value was £39,000,000.

Savings Bank.—The number of accounts in the Post Office Savings Bank was 1,660,424, a slight increase on 1914–15. The total balance at the credit of depositors at the end of the year was over £10,200,000, an increase of 2·88 per cent. For the first time the help of the Post Office was utilised by the Government of India in the floating of a loan and a sum of nearly £330,000 was subscribed in this way.

Offences.—There were 28 cases of highway robbery as against 23 in 1914–15. The number of postal officials found guilty of criminal offences was 491, as against 476.

Sale of Quinine.—In 1915–16 16,136 lbs. were sold to the public through the Post Office, as compared with 21,812 lbs. in 1914–15.

The Post Office and the War.—Soon after the outbreak of hostilities the overland route *viâ* Brindisi was closed and the all-sea route *viâ* Gibraltar adopted. This arrangement continued until June 1915 when the overland route *viâ* Marseilles was adopted for letter mails with the United Kingdom and both letter and parcel mails with France. Parcel mails to and from the United Kingdom continue to travel *viâ* Gibraltar. Two of the P. & O. Steam Navigation Co.'s mail steamers, the "Persia" and "Maloja," were sunk on their way to India and the mails lost. The cross-channel steamer "Sussex," conveying mails from England to India, was also torpedoed, but a large part of the mails was recovered. The privilege of sending correspondence of all classes to India free of postage was continued to members of all the Indian Expeditionary Forces. Letters, parcels, and money orders were allowed to be sent free of charge from India to British and Indian prisoners of war interned in Europe. Postal articles for and from prisoners of war interned in India were accepted free of postage, registration or insurance fees, and money orders were transmitted without commission. Field post offices from India were maintained with all the Indian Expeditionary Forces, the chief base post office being at Bombay.

Telegraphs.

The following statement refers to the whole of the telegraph system under the direct control of the Government of India, but excludes that of the Indo-European Telegraph Department, for which, as usual, a separate account is given.

Extent of Telegraphic Operations.—The system on 31st March 1916 consisted of 86,067 miles of line and 337,720 miles of wire and cable.

At the end of the year there were 10,756 telegraph officials (150 being women), and 8,592 out of 10,482 telegraph offices were open for public business. 3,288

(Telegraphs.)

were combined post and telegraph offices, and 5,084 railway offices. The total number of inland telegrams transmitted was 16,077,300; the charges realised, £702,150, represented an increase of 8 per cent. in number, and 6 per cent. in value. The total number of foreign telegrams rose from 1,271,000 to 1,465,600, an increase of 15 per cent., and the number of words rose by 34 per cent., largely owing to the prohibition of code telegrams. The total receipts were £203,500, an increase of 18 per cent. State telegrams, both inland and foreign, show a considerable increase. With effect from 1st December 1915, a reduction of 12 annas a word was made in the rate for both State and private telegrams exchanged between India and Mesopotamia and of 2 annas a word in the rates for similar telegrams between India and Persia and the Persian Gulf. A new rate of 3 annas a word was also introduced for Press telegrams between India and Mesopotamia from 15th December 1915.

Telegraphists and stores were furnished to aid the military operations.

The total number of wireless stations rose from 18 to 19, including 10 coast stations. They worked satisfactorily.

Telephones.

On 31st December 1915 the number of departmental telephone exchanges was 226 with 4,556 connections, and the number established by licensed companies 13, with 10,766 connections. The gross rental obtained rose from £57,000 to £65,000. Royalties paid to Government increased from £6,100 to £6,700 in 1915.

Indo-European Telegraph Department.

This Department controls the system of telegraph lines and cables connecting the terminus of the Indo-European Company's telegraphs at Teheran and that of the Turkish telegraph lines at Fao with the Indian telegraph system at Karachi, and consists of 1,950 knots of cable, 2,810 miles of line, and 7,283 miles of wire. Included is a cable from Jask to Muscat, 219 knots in length. The Department also maintains a line from Teheran to Meshed, 568 miles, which is the property of the Persian Government. The reconstruction by the Department of the Persian telegraph line from Borasjoon on the Shiraz-Bushire line to Ahwaz and Mohammerah, with the branch line from Ahwaz *viâ* Shushtar to Dizful, was completed on 28th November 1915. The section from Mohammerah through Ahwaz and Shushter to Dizful was taken over temporarily by the Mesopotamia Expeditionary Force. By arrangement with the Persian Government, the Department was given the use during the night of the Persian line from Teheran *viâ* Meshed to Seistan, which, by connecting with the Robat Seistan line, gave a rather uncertain connection between Teheran and Karachi.

The number of messages transmitted was 133,276, as against 173,016 in 1914–15. Of these, 36,783 were State telegrams, as against 15,356. The capital outlay to the end of 1915–16 was £1,027,869. The gross earnings were £173,057 as against £169,181 in 1914–15. The net profit was £79,293, as against £81,278 in 1914–15, and the return on capital was 7·71 per cent. as against 7·96 per cent. Under the Joint Purse Agreement, the share of the Department was £178,315, as against £175,140 in 1914–15. The amount paid into the Joint Purse was £85,738. The departmental receipts from the Australasian Message Fund for 1915–16 were £11,601, being £3,903 less than in 1914–15, but an increase of £5,366 on the receipts for 1889, on which the original Australasian Message Fund was based.

Reduced rates for the period of the war were introduced from 1st December 1915 for telegrams exchanged with Europe and India. There was no total interruption between Karachi and Teheran. Beyond Warsaw the route *viâ* Teheran to London has been totally interrupted since 31st July 1914. The Fao-Constantinople route has been totally interrupted since 3rd November 1914.

Owing to the disturbed state of the country, many places had to be evacuated by British State officials, and the telegraph offices closed. Several of the latter have, however, since been re-opened.

The staff of the Department have rendered valuable service during military operations.

CHAPTER XIII.—SCIENTIFIC DEPARTMENTS.

The Board of Scientific Advice.

This Board includes the heads of the Survey of India, the Meteorological, Geological, and Botanical Survey Departments, the Director-General, Indian Medical Service, representatives of the Agricultural, Forest, and Civil Veterinary Departments, and other authorities whose special attainments may be useful. It was established in 1902 to co-ordinate official scientific inquiry, and to advise the Government of India in the prosecution of practical research. The programmes of investigation are annually submitted to the Board for discussion and arrangement, and an annual report is published on the work done, as well as a programme of research for the ensuing year. The reports and the programmes are communicated to an Advisory Committee of the Royal Society. The Board held two meetings in 1915.

Survey of India.

The work of the Survey of India comprises the trigonometrical survey, topographical and forest surveys, special surveys and explorations, and map production. The total cost of the Department in 1915–16 was £144,867. In 1904 attention was drawn to the defective state of the topographical survey maps. A Committee then appointed reported on the subject. The Government of India finally decided that a scale of 1 inch to the mile would ordinarily be sufficient, reserved forests and special areas being surveyed on the scale of 2 inches and the ½-inch scale employed for waste and barren tracts. Of the total of 1,821,600 sq. miles included in the programme, 406,491 sq. miles were completed by September 1915. Of the 1-inch map, 154 sheets were published, making a total published of 1,190 out of an entire programme of 6,328. The total number of maps issued during the year was 425,008. During the year ending September 1915 field operations were carried on by 20 survey parties. Owing to shortage of officers through absence on military duty, field work was considerably curtailed. The 73 repeat stations of the magnetic survey were inspected and marked in a permanent manner. On the 26th April the Magnetic Observatory at Barrackpore was closed in accordance with the recommendation of the special committee, and the number of observatories reduced to four.

Other Surveys.

Geological —The preparation of a general geological map of India was continued during 1915 by surveys in Bombay, Burma, Rajputana, Central India, Kashmir, Ajmer-Merwara, Hyderabad, Sind, and the Central Provinces. Economic investigations, which form an increasingly important part of the Department's work, were conducted into bauxite, manganese, coal, potassium salts, &c.

Botanical.—The botanical survey is under a Director. An economic botanist is attached to the Department, and the economic botanists of the Provincial Government are associated with it. During the year experiments were made in the cultivation of various medicinal plants. Much botanical work is done by forest officers and others outside the Department.

Zoological work is carried on by the Indian Museum, but proposals were under discussion for a regular Zoological Survey.

Marine survey work is under the Royal Indian Marine, who possess two specially-equipped vessels for the purpose.

Meteorological Department.

There are five first-class observatories, of which three publish separate annual reports. There were 274 observatories (of which 41 were non-departmental) at the close of 1915–16. Daily, weekly, and monthly weather reports, as well as seasonal forecasts and storm warnings, are issued. The number of warning messages sent from Simla in 1915-16 was 2,838 as compared with 2,060 in 1914–15 and 1,840 in 1913–14. The number of warnings for heavy rainfall sent from Calcutta was 909 as compared with 1,003 in 1914–15. The demand for warnings increased.

Agricultural Departments.

General.—The greater part of the scheme for the development of agricultural experiment and instruction formulated in 1905 has now been realised.

There are Agricultural Departments in every larger province under a Director of Agriculture with one or more Deputy Directors who are trained agriculturists. Besides these there are various specialists attached to the provincial departments and

in some cases the Principalship of the Provincial Agricultural College is a separate post. In Bengal there is a fibre specialist. The officers directly under the Government of India are the Agricultural Adviser, who is also Director of the Pusa Institute and Principal of the Agricultural College, and his assistant, 2 agriculturists, 2 entomologists, a pathological entomologist, 2 bacteriologists, 2 mycologists, 2 agricultural chemists, 2 agricultural botanists, and a cotton specialist. The posts of Second Imperial Economic Botanist and Second Imperial Mycologist were created in the year under review. A total of 16 new posts, bringing the total number of officers in the Indian Agricultural Service up to 86, resulted from these creations, and from the sanctioning of additional posts for assistant and deputy directors and for one superintendent of cinchona plantations. There are agricultural colleges in six provinces, besides the Central College at Pusa. In every province there are experimental farms. The Provincial Departments distribute selected seeds and manures, furnish advice as to implements and crops, conduct agricultural demonstrations, and publish agricultural information. There is a Board of Agriculture which suggests and reviews programmes of work. Agricultural memoirs and an agricultural journal are published.

Pusa Research Institute and College.—Experimental work was continued in cotton and sugar-cane growing, in green-manuring, grain storage, the protection of timber, bee and lac cultivation, &c. Progress was made with various wheat investigations, and very favourable reports were received of shipments of Pusa 12 sent to England, larger samples being asked for, in addition to samples of Pusa 4, the demand for which in India increased considerably. An examination of the composition of rices was undertaken. Work was continued on various plant diseases and insect pests, on bacteriological changes in the indigo steeping vat, the occurrence of saltpetre in Indian soils, silkworm disease, &c. The training of students in post-graduate courses was continued, and short courses were also given in cattle management and sericulture. Several visitors worked in the laboratories. The ninth meeting of the Board of Agriculture was held at Pusa in February.

Bengal.—Proposals were submitted for the revision of the Subordinate Agricultural Services. Selection and cross-breeding experiments with jute established the superiority of the fibre expert's pure-line selection Kakya Bombai No. 7. Experiments were also made with manures, deep-water paddy, and in sericulture. The Provincial Association held one meeting. Only two students sat for the Diploma Examination at the Sabour College in Bihar; both were successful. The post of Fisheries Expert was made permanent with effect from 5th December. 3 new co-operative societies of fishermen were established, making the total number 7.

Bihar and Orissa.—There was no change in the number of Government stations (five), but two new private demonstration farms were opened, one at Kendrapara and the other at Kanika, and placed under the control of the department. The resolutions passed at an Inter-Provincial Conference on Jute, held at Calcutta in August, were accepted by Government as far as applies to this province, and the necessary action taken. The reduction of the three years' diploma course of the Provincial College at Sabour, which is also the college for Bengal and Assam, from three years to two, resulted in an increase of students. Two obtained the diploma.

Assam.—There are five experimental stations, viz., 3 farms, a fruit station at Shillong, and a sugar-cane station at Khagrabari in Kamrup, at all of which apprentices are trained. Attempts were made to extend terraced rice cultivation in the Lushai and Abor Hills. Experimental and demonstration work with maize, sugar-cane, potatoes, manures, rice, &c. were continued.

Punjab.—Experimental work with wheat, sugar or cotton was carried on at the larger farms of Lyallpur, Gurdaspur, and Hansi; the smaller farms of Sargodha, Basal, Guruharsahai, and Jallalabad are mainly given up to demonstration or seed growing. The Lower Bari Doab Colony keeps in close touch with the department. The district boards of Sialkot and Amritsar started demonstration farms, from which most satisfactory results are expected. The area of cotton and wheat sown from the department's selected seed was extended, well-boring operations were successfully executed, experiments in the reclamation of saline lands progressed, and the sale of implements increased. The Agricultural College at Lyallpur had a satisfactory year; a demand is springing up among private landowners for holders of the College diploma as managers.

United Provinces.—The department was short-handed, and the reduction of the staff of the Agricultural College at Cawnpore coincided with a full entry roll. Work was

consequently handicapped, though the demand for seed distribution, pumping plant, &c. continued to grow. The number of private farms working in association with the department (at present largely confined to Oudh) increased. The cultivation of Pusa 12 wheat was greatly extended, and Pusa 4 was also distributed. Well-boring and the sale of implements decreased, owing to increased cost.

Central Provinces.—The new curriculum increased the popularity of the Nagpur Agricultural College, and the number of applications for admission necessitated the extension of the hostel. The completion of the new Agricultural Research Institute stimulated research. Valuable experiments and demonstrations in connection with the improvement of staple crops and such crops as sugar-cane and ground-nuts, and with tillage, manuring, and cattle feeding, continued. Four new wheat seed farms were opened for the propagation of Pusa wheat. Work was hampered by lack of staff.

North-West Frontier Province.—The introduction of new varieties extended the Peshawur peach and plum seasons by two months. Pusa wheat, No. 4, having proved superior to all others, was widely tried. Experiments with Egyptian clover proved successful. Beetroots grown at Tarnab obtained a gratifying success; their use to supplement the short cane season would do much to make sugar refining profitable.

Burma.—The biennial Agricultural and Co-operative Conference was held at Mandalay in August. Five experimental stations were maintained in addition to the principal farms, but the experimental garden at Myitkyina was given up. Experiments to discover suitable and remunerative alternatives to the one important crop of the province—rice—showed wheat, cotton, and sugar-cane to be the most promising.

Madras.—Ten stations were at work, and investigations in the green-manuring of paddy soil and with sugar-cane breeding, &c. were conducted. Better varieties of cane were more extensively planted. Great efforts were made to promote the sowing of better strains of cotton and diminish the rate of seed used for paddy cultivation. The department took a prominent part in the Madras Park Fair Exhibition held in December and January. The Central Agricultural Committee was dissolved. The standard for the diploma at the Agricultural College was rather higher; 12 out of 18 candidates succeeded. A bad year in 1914–15 was followed by a fish famine along the whole coast, and pisicultural work was confined to the fresh waters, where it met with a success, which, if continued, may soon make the department self-supporting. The demand for oysters increased.

Bombay.—The total number of students at the College (Poona) fell from 124 to 116, chiefly owing to the suspension of the annual practical course on account of space being needed for a war hospital. The three vernacular schools did well. Experiments in plant breeding, land development, and in combating disease and insects were continued, the last under the difficulty of securing co-operation from these who object to taking life. In Sind American cotton did well, but the predilection of the cultivator for mixing Sindhi cotton with it has to be combated. Sugar-cane had a successful season.

Civil Veterinary Department.

This Department is responsible for all official veterinary work other than that of the army. Its duties are concerned with horse, &c., breeding, cattle-breeding, horse and cattle disease, and veterinary education. The total cost of the Department in 1915–16 was £211,508 (excluding expenditure by local bodies).

Horse, Mule, and Donkey Breeding.—In certain districts of the Punjab, Baluchistan, the United Provinces, and Sind, the control of horse, mule, and donkey breeding was, in 1903, transferred from the Civil Veterinary Department to the Army Remount Department, the work of the former being confined to cattle. Outside these districts the Civil Department controls all breeding operations. There were on the register at the end of 1915–16, 94 horse, 99 pony, and 111 donkey stallions. The total number of mares covered was 15,761. Most of the horse stallions are in the United Provinces, and most of the pony and donkey stallions in the Punjab.

Cattle Breeding.—Veterinary operations are directed towards improvement of the breeds of bovines, investigation of diseases, inoculation, and maintenance of veterinary dispensaries. There were at the end of the year 147 Government bulls, and 1,111 bulls owned by district boards, the great majority of the latter being in the Punjab. There are provincial cattle farms in the United Provinces, Assam, Bombay, Central Provinces, Bengal, Bihar and Orissa, and the Punjab. The Hissar Government Cattle Farm in the Punjab is the most important centre of cattle breeding. It issued during the year 181 bulls and 6 donkey jacks to district boards in the Punjab, and 25 ordnance and transport mules, as well as 1 donkey stallion, to the Army Remount Department. A considerable number of cattle fairs and shows were inspected.

(Civil Veterinary Department.)

Disease.—(a) *Equines.*—Of 138 reported deaths from glanders, 80 were in Bengal. There were 248 deaths from surra, 145 being in Bombay, 54 from anthrax, and 326 from other contagious diseases.

(b) *Cattle.*—Owing to the difficulty of collection, statistics of mortality from contagious diseases are defective. The number of reported deaths was 180,122, as against 236,360 in 1914–15. The deaths from rinderpest numbered 95,159, as against 111,629. There were 395,318 inoculations against rinderpest.

The veterinary hospitals and dispensaries, at which 863,218 animals were treated during the year, numbered 456. Sera and vaccines were issued from the Muktesar laboratories, where researches into rinderpest, anthrax, &c. were also carried out. The camel specialist was at work on surra and other diseases.

Subordinate Staff.—110 inspectors and 1,008 assistants were employed.

Veterinary Instruction.—109 students graduated in 1915-16 at the four veterinary colleges of the Punjab, Bengal, Bombay, and Madras, and the Burma Veterinary School. There were 437 students under training at the close of the year.

Archæological Department.

The primary function of this Department is the conservation of monuments of historic and architectural interest under the Ancient Monuments Preservation Act, but exploration is undertaken so far as means and opportunity permit. In 1915–16 a donation from the Royal Asiatic Society was applied to work at the buried university of Nalanda in the Patna district of Bihar. In the North-West Frontier Province excavations were continued at Taxila, and at Sirsukh five bastions and the intervening stretch of city wall, a few buried houses, and two outlying Buddhist religious establishments, with many valuable antiquities, were excavated. Excavations were undertaken at Nagari and Hathi-bada, near Chitorgarh in the Udaipur State, Rajputana; at the latter place a shrine, stated to be the earliest dedicated to Vaishnava worship, was unearthed. In Burma, excavation in the Prome and Pagan districts brought to light inscriptions of great chronological importance. No excavation work was undertaken in Madras.

Medical Research Institutes.

In 1907 the bacteriological laboratories in India were placed on a definite footing. In 1911 was instituted a Central Research Fund for research into epidemic diseases, with a government endowment. The fund is under a Scientific Advisory Board. The Research Fund Association publishes a quarterly "Indian Journal of Medical Research." During 1915–16 researches were undertaken into kala azar, cholera, goitre, leprosy, ancylostoma, malaria, tuberculosis, diabetes, plague prevention, &c. At the Central Research Institute, Kasauli, vaccines and sera were prepared as usual for Government and private institutions, pathological and other specimens were examined and classes were held in bacteriological method and technique. Investigations were made into snake venoms and rabies. The Bombay Bacteriological Laboratory is the headquarters of the Plague Research Commission. A large quantity of its output of anti-plague vaccine goes to countries outside India. The total amount of work was increased by the examination of articles for the Supplies and Transport Department to the largest yet recorded. At the King Institute of Preventive Medicine, Madras, the number of pathological samples submitted declined; that of samples of water supply increased.

Imperial Forest Research Institute and Forest College, Dehra Dun.

The work of the Institute comprises tuition and research in sylviculture, forest economy, zoology, botany and chemistry. During 1915–16 investigations were undertaken with a view to the utilisation of many kinds of forest produce, such as antiseptics for timber, railway sleepers, wood for matches, &c., resins, tan-barks, grasses and bamboos for pulp. The zoologist studied *sal* insect pests in Bengal.

In the Forest College on the 30th June 1916 there were 74 students attending the Rangers' classes and 23 attending the Provincial Service Classes.

CHAPTER XIV.—EDUCATION.

(*For further details see Statistical Abstract for British India, Tables* 45 *and* 46 *and* 103 *to* 113.)

General.—Educational institutions in India are of two classes:—

(1) Those in which the course of study is prescribed by the Department of Public Instruction or by the University, and which satisfy one or both of these authorities that they attain to a reasonable standard of efficiency. They are open to inspection, and their pupils are ordinarily eligible for admission to public examinations and tests held by the Department or the University. These institutions are called "public," but may be under either public or private management. To the latter class, for example, belong those "aided schools," receiving grants from Government or from local or municipal boards, which occupy so important a place in the system of Madras, Bengal, and other provinces.

(2) Those which do not fulfil the above conditions, and are called "private."

The system of education operates, generally speaking, through three grades of institutions, viz.:—

(i) Primary schools, which aim at teaching reading, writing, and such elementary knowledge as will enable a peasant to manage his affairs.

(ii) Secondary schools, divided into English and Vernacular. English are those in which English forms part of the regular course of study of all the scholars, or at least of all the scholars in the higher classes; in the Vernacular, English is not taught, or is an optional subject only.

(iii) Colleges, the students in which, having passed the matriculation examination of a University, are reading for the examinations required for a degree.

In addition to these there are such institutions as technical schools teaching arts and industries, engineering and other branches of applied science; law schools; medical schools and colleges; and normal schools for the training of teachers.

The general educational policy of the Government of India was declared at length in a Resolution published in March 1904, of which some account was given in the issue of this Statement for 1903–4; and more recently in the Resolution of 21st February 1913, published in the Sixth Quinquennial Report on Education in India, Cd. 7486 of 1914. A brief narrative of educational progress is now published annually by the Government of India, to supplement the Quinquennial Reviews. That for 1915–16 records the arrangements made to replace enemy aliens engaged in educational work who were interned in July; the difficulty of recruiting professors and inspectors from England; the depletion of the profession in India by transfer to military service; the postponement of new schemes for financial reasons. But, in spite of adverse circumstances, provinces continued quietly to work out their programmes. The number of scholars in all institutions rose from 7,448,419 to 7,617,496, of whom 5,871,184 males and 1,112,024 females were in public institutions. The percentage of scholars to population of school-going age rose from 20·4 to 20·9. In 1914–15, 5·1 per cent. of the male, ·94 of the female, and 3·06 of the whole population was under instruction; in 1915–16 the figures were 5·2, 1·0, and 3·1. The total expenditure on education in British India now amounts to £7,338,800, and the total increase in the last two years, during 20 months of which the Empire has been at war, has been £907,000. There are now 189,248 educational institutions in British India, which represents an increase of 4,192 in 1915–16. A new development in University organisation was made with the Benares Hindu University Act, which established a denominational university of a unitary nature, founded to meet a popular demand, backed by large private contributions, and in some respects more independent than the five existing universities. The scheme for an Aligarh Moslem University met with less success, a section of the Muhammadan community disliking the Benares Act on which it would be modelled. Progress was made with schemes for universities in Patna, Burma, and the Central Provinces.

No new developments were reported in religious and moral instruction as a result of the recommendations of the committee called to consider the matter in the provinces, save the change from English to vernacular as the medium in Bombay. The use of the vernacular as the medium of instruction in general up to a comparatively advanced standard was much discussed in the Press. When action was taken, however, in the United Provinces, singularly little interest was evinced. The year's record shows that the school-leaving certificate is gradually growing in popularity.

(Education.)

Serious occurrences in Bengal institutions reflected conditions in the province. There were strikes in the Presidency and Engineering colleges, and in two privately managed colleges; a Government high school headmaster was murdered, and it was found necessary to arrest and intern certain Calcutta students. A serious strike broke out also at the Government High School at Rangoon.

System of Management.—The Department of Education in the Government of India was created in 1910. There is, further, in each province, save in Coorg, a department of Public Instruction, subject to the Local Government, which advises as to educational needs, administers the funds allotted, inspects, examines, frames rules and prescribes curricula. Its controlling powers, however, are shared, as regards higher education, with the universities, and, as regards elementary education, with the civil authorities and the local and municipal bodies. The great majority of institutions are maintained by the boards or by private agencies, which in turn may receive aid either from the board or from the department. The inspecting agency is, with minor exceptions, included in the Government services. The civil authorities are concerned with education as being in general charge of all branches of administration in their jurisdiction. The bulk of elementary education is in the hands of municipal and district boards, which not only maintain schools but also disburse grants to schools maintained by private bodies or persons. In the discharge of their duties of control, including the closure of their own schools, the appointment and dismissal of staff and the disbursement of aid to privately managed schools, the boards are guided by rules issued by the Local Government. The curriculum is that prescribed by Government; and the scale of grants to aided institutions must be generally in accordance with the departmental rules. Private agencies are a factor of great importance in the educational system, and include missions, Indian societies and committees, and individual managers, who are generally also the teachers. The Universities frame courses, conduct examinations for diplomas and degrees, affiliate and inspect colleges, and prescribe the curricula in the upper classes of high schools preparing for the matriculation examination. Finally, there are a number of committees (text-book, visiting, ladies' for girls' schools), as well as governing bodies for the detailed control of individual institutions.

Cost of Education.—The total cost of the educational system is shared almost equally between public and private funds. By the former are meant provincial revenues (*i.e.*, the revenues of the Local Governments), enhanced from time to time by grants from the Imperial Government, and municipal or district board funds. Municipal and district or local boards levy cesses, but the income so resulting is generally increased by Local Governments, either by equilibrium grants or by special grants. Of the total expenditure in 1915–16, £4,144,600 was provided from public funds; £2,023,400 was derived from fees. It is important that the growing appreciation of education on the part of the public evidenced by increase in pupils should take the shape of financial support. The average cost of education in an ordinary arts college is Rs. 150 per student, in a secondary school it is less than Rs. 27, and in a primary school about Rs. 5.

Where fees were paid in primary schools, the average annual fee in the quinquennial period 1907–12 was 14½ annas; the proportion of free pupils admitted varied in the different provinces. Though salaries have been enhanced, and staffs increased in recent years, much of the expenditure has necessarily been upon buildings and furniture, which still leave much to be desired. In 1915–16 expenditure upon buildings and furniture decreased, while expenditure on maintenance and establishments increased. The year's record does not, however, contain any further measures for raising the pay of teachers. The incompetency and discontent of underpaid teachers must be held responsible for some of the success revolutionary propoganda have had among students and teachers.

The following is a short summary of the year's record in the several provinces.

Delhi.—At the end of the year 8,640 boys and 1,980 girls were receiving education in 101 public schools and colleges for boys and 21 public institutions for girls. The largest class of scholars was that of non-Brahmin Hindus, Muhammadans coming next. Examination results showed improvement.

Bengal.—The total number of scholars in all institutions rose from 1,799,889 to 1,844,541, of whom 1,504,648 males and 273,850 females were in public institutions. Of public institutions for males, the number of primary schools* increased from

* Variation in the case of primary schools in all provinces has to be considered with the reservation that it results in some cases from re-classification.

28,335 with 999,112 pupils to 31,617 with 1,067,782; that of high schools from 599 with 192,032 pupils to 627 with 200,382; the number of arts colleges was reduced from 31 to 29, but in these colleges scholars increased from 15,808 to 17,100. Of public institutions for females, the scholars in the 3 female arts colleges increased from 113 to 126; high schools were reduced from 28 with 3,764 pupils to 26 with 3,691; primary increased from 7,627 with 225,130 to 8,793 with 259,640. The percentage of scholars in public institutions to population of school-going age rose in the case of males from 42·3 to 42·9; in that of females from 7·6 to 8·2. Expenditure rose from £1,695,600 to £1,711,866.

Mention has been made above of grave occurences in colleges and in a Government high school. Against these has to be set the success of Hastings House School modelled on English public school lines, which was opened during the year. Other satisfactory features of the year were the attempts in three mission high schools to make the instruction for girls less unsuited to their needs by including the teaching of hygiene and domestic subjects; courses in home nursing, cookery, &c., given to 934 students by the Y.W.C.A. in Calcutta; and arrangements through the Y.M.C.A. for the supply of directors of physical instruction. An unfortunate decline in the numbers at the David Hare Training College and a decrease in upper primary schools (the latter apparently owing to the unpopularity of purely vernacular education) are significant.

Bombay.—Plague, and the closing of schools owing to poor attendance, appear to have contributed to the reduction of public primary schools for males from 9,929 with 551,987 pupils to 9,797 with 545,461 pupils. It should perhaps also be noted in this connection that the conversion of ordinary into rural schools continues to excite some agitation, and is under re-consideration. The decrease reduced the percentage of male scholars in public institutions to male population of school-going age from 40·4 to 40·3, though the total number of scholars in public institutions rose from 750,602 to 754,622 owing to the increase of female scholars in public institutions from 129,738 to 134,833. The total of scholars in all institutions rose from 789,709 to 799,273. The total of male pupils in public high schools (the number of which increased from 110 to 111) remained practically stationary, 37,615 as against 37,600. 106 female students were reading in arts colleges for males, and the percentage of female scholars in public institutions to female population of school-going age rose from 9·2 to 9·5. It was the verdict, however, of the Director that "outside of Bombay " and Poona secondary schools for girls would not exist in the central division " without the help of missions, and those that do exist have very few girls in them." The number of public high schools for girls remains 31; their pupils decreased by 115 to 4,600. Complaint was made of the failure of teachers to avail themselves of opportunities for training, not a single school from the city sending a teacher to be trained at the secondary training college. Expenditure rose from £1,025,800 to £1,027,400. Systematic arrangements for the medical inspection of pupils were made, and the appointment of five doctors in certain classes of schools sanctioned.

Madras.—Of public institutions, primary schools numbered 28,166 for males (with 1,048,380 pupils) and 1,619 for females, with 280,558; high schools, 183 for males with 97,993 pupils, and 35 for females with 6,223; in 37 arts colleges for males there were 8,409 students, and in the 3 for females 98. The Government College for women amply justified expectations and was raised to the first grade. 5,276 secondary school-leaving certificates were completed, and 3,195 candidates took a supplementary course to improve these, as against 5,529 and 2,339 respectively in 1914–15; a list of such certificate holders as were eligible for admission to university courses was for the first time published by the university. The percentage of scholars in public institutions to population of school-going age rose from 37·3 to 39·2 in the case of males, and from 8·8 to 9·3 in that of females. Expenditure rose from £1,290,200 to £1,376,800, of which £716,600 was derived from public funds, £364,666 from fees, and £295,533 from other sources.

Bihar and Orissa.—The number of scholars in all institutions continued to decline, and fell from 836,209 to 831,430. This was mainly owing to the decrease of male scholars in public primary schools from 557,041 to 547,721, and was attributed *inter alia* to unskilful concentration of schools and unwise allocation of funds. It was accompanied by a decrease in private schools and their pupils. The decline of Islamic learning was reported with regret. The percentage of scholars in public institutions to population of school-going age fell in the case of males from 26·8 to 26·7; it rose in that of females from 4·2 to 4·3. Total expenditure fell from £571,933 to £563,733; more than a third was contributed from provincial revenues.

(Education.)

Punjab.—Primary schools for boys increased by 205 to 4,757, with 234,762 pupils; those for girls by 44 to 922 with 40,591. Secondary schools increased by 34 to 484. In the 9 arts colleges for males, students increased by 377 to 3,880, and this increase was accompanied by improved examination results. Male students in the professional colleges increased by 87 to 922. The number of normal schools rose from 6 to 9. The proportion of trained teachers continues to rise; applications for admission to the Central Training College were the highest numerically and of the most satisfactory type on record. The percentage of scholars to population of school-going age was in the case of males 24·4, in that of females 5·21. The number of Muhammadans in all schools increased, but is still unsatisfactory. The new system of medical inspection of secondary schools was introduced. Expenditure rose from £714,588 to £747,784.

Central Provinces and Berar.—The number of high school and vernacular middle school pupils increased, but the percentage of matriculation successes fell from 41 to 36. In primary education there was a decrease of 24 schools and 1,128 pupils, partly owing to the closing of 51 small indigenous schools in Berar and to epidemic disease. A scheme was drawn up for an extension of normal schools, and of the Training College at Jubbulpore; the foundation of an arts college at Amraoti was proposed, pressure on the existing colleges continuing to increase. University results showed a decline in the percentage of passes. The report complains of the mediocrity and sameness in the methods of teaching. Expenditure rose to £319,039.

United Provinces.—The number of institutions decreased by 170. Aided primary schools for boys not having reached a reasonable standard of efficiency were either closed or converted into board schools, resulting in a decrease of 489; primary schools for boys, of a public character, falling from 10,537 to 10,471, with an increase, however, of 31,775 scholars in board schools, and a decrease of 17,023 in aided schools. The disappearance of certain aided lower primary schools accounts mainly for the reduction of schools for Indian girls from 1,402 to 1,384, but here again the number of pupils increased (from 46,279 to 47,368). Upper primary schools for boys managed by district and municipal boards increased by 308, and their scholars from 64,718 to 80,613; secondary schools for boys increased from 594 to 611. Special measures were sanctioned during the year by the Local Government for the extension of Muhammadan education, and in the increase of pupils in the primary schools the Muhammadans show the largest increment, though in the high and middle schools this falls to the Hindus. The percentage of scholars to population of school-going age increased, the figures being: for 1914, males 20·96, females 1·88; for 1915, males 21·15, females 1·94. There was an increase of over 9 per cent. in the enrolment of students in arts colleges, and pressure on accommodation in the intermediate classes continues. Expenditure fell to £927,937.

Burma.—Expenditure fell to £434,275. Students at the Government College, Rangoon, increased from 391 in 1913–14 to 567. The total gain of pupils in collegiate and secondary schools was 6,551; in the upper primary 6,856; and in the lower primary 1,280. The percentage of male and female scholars to male and female population of school-going age rose from 47·19 and 12·66 to 48·07 and 13·18. The percentage of institutions to number of towns and villages was 69·88. The serious "strike" in September at the Government High School, Rangoon, was quelled by the newly-arrived principal with the help of some members of his staff and Burmese parents.

Of 19,511 monastery schools in Burma, with 267,936 pupils, only 3,418 containing 102,098 pupils, are registered; the remaining 16,093, with their 165,838 pupils, not yet up to the standard of registration, offer a promising field for expansion, but without more lay schools, many children would even then remain without educational facilities.

North-Western Frontier Provinces.—The disturbed state of the Frontier was reflected in a decrease of Hindu scholars, and among all religions increase was at a lower rate than in any of the preceding five years. Public institutions increased by 51; private decreased by 36. There was heavy decrease in the number of vernacular schools and of schools teaching Arabic and Persian, or the Al Quran. The staffing of district board schools was much improved by the increased output of teachers from the Normal School. A training school for female teachers is badly needed. Two Christian students at the Church Mission College joined the army. The number of students at the Islamia College again increased; a new science block was built, and the college was affiliated by the Punjab University up to the F.Sc. Standard. This college did particularly well in examinations, and won the Football Championship for the second time in the Northern Circle of the University Tourna-

ment. The Mehtar of Chitral, two of whose sons are pupils in the school which forms part of the institution, succeeded the late Nawab Colonel Sir Aslam Khan as president of the governing body. The attendance of 67 boys from across the border in a year of military operations against a border tribe within 15 miles, speaks well for the reputation the college is gaining among the trans-frontier peoples. The examination results in both colleges much improved. 39 out of 57 students were successful in the F.A. Examination, as against 18 out of 50 in 1914–15, and the number of successful candidates for the degree of B.A. increased from under one-third to over one-half. The Provincial Athletic Tournament was held successfully at Peshawur in December. The percentage of institutions to towns and villages was 31·8; of male and female scholars to male and female population of school-going age 24·9 and 3·4. There was a slight decrease in expenditure.

Assam.—Expenditure rose from £176,950 to £179,171. Students at the two colleges increased from 551 to 593. The Murarichand College was advanced to the degree standard, thanks to a public-spirited provision of funds by some leading inhabitants of the Surma Valley, and the first place in the Intermediate Arts Examination was secured by a student; the affiliation of the Cotton College to the B.A. Honours standard justified itself by the success of six candidates. The Erle Law College was formally opened on 8th July, and the average daily attendance rose from 11 in 1914–15 to 29. High schools increased by one, but their enrolment fell from 12,158 to 12,085, the decline occurring in the primary department; middle English schools increased from 110 to 117, but enrolment fell from 12,469 to 12,353; middle Vernacular schools for boys increased from 64 to 91, and pupils from 7,385 to 10,347. Primary schools for boys decreased from 3,926 to 3,859 owing mainly to the development of primary to middle Vernacular schools, and to the closure by the missions of schools in the Khasia, Jaintia, and Garo Hills, but the decline in enrolment was only 130 (175,414 to 175,284). There was a fall in the percentage of average daily attendance to average monthly enrolment in the lower primary, upper primary, and middle Vernacular schools from 75·8 to 71·1; 80·3 to 75·2; and 81·6 to 76 respectively, but it was a year of heavy floods and consequent disease in Assam. The percentage of examination successes in the secondary schools showed a slight improvement, in which the Surma Valley maintained its lead over the Assam Valley. The demand for more and better text-books continues. The inspecting staff remains inadequate. The percentage of institutions to the number of towns and villages was 17·56; of scholars to population of school-going age, males 40·21, and females 5·81, or 23·58.

Coorg.—No material change occurred in the educational institutions of the province, one training school, one upper secondary, and one lower secondary girls' school at Mercara, and one lower secondary school at Virajpet, and 98 elementary schools. Staffs were inadequate, and attendances decreased.

(Municipalities.)

CHAPTER XV.—LOCAL SELF-GOVERNMENT.

General.

In most towns of any importance there are municipal committees, while in rural districts there are local boards, which are under the control of general district boards or send delegates to a district council. The systems vary in different provinces. In some provinces there are also non-elective local bodies discharging similar duties in the smaller towns, described as "notified areas," which are not fitted for full municipal responsibilities but require organised measures for sanitation and other purposes. In the chief ports specially constituted boards or "trusts" have charge of harbour works, port approaches, and pilotage. Bombay, Calcutta and some other cities also have "Improvement Trusts," distinct from the Municipal Corporations, for the purpose of clearing congested areas and making street improvements.

On 28th April 1915 the Government of India, in view of the recommendations of the Decentralisation Committee, published an important resolution on local self-government policy, recommending an expansion of the elective and non-official elements on local bodies, the concession to them of fuller financial powers, the substitution for octroi of direct taxation or terminal taxes in towns, and the levy of a cess on land for the promotion of light railways by district boards.

Municipalities.

(*For further details see Statistical Abstract for British India, Tables* 99 *to* 101.)

General.—The municipal bodies exist, raise funds, and exercise powers under enactments which provide separately for each province and the three Presidency capitals, Bombay, Calcutta, and Madras. In the municipalities as a whole rather more than a half of the members are elected by the townsfolk; in every town some, and in a few minor towns all, of the members are appointed by the Government. In almost every municipal body one or more Government officials sit as members. The number of Indian and non-official members, however, in every province largely exceeds the number of Europeans and officials. The municipal bodies are subject to Government control in respect of new taxation, loans, large public works, rules and byelaws.

There were 712 municipalities at the end of 1914–15 (the latest year for which complete figures are available), containing within their limits about 17 million people, or 7 per cent. of the total population of British India. Generally speaking, the income of municipalities is small.

Municipalities other than Calcutta, Bombay, Madras, and Rangoon get their loans chiefly from Government. The sources of municipal revenue, apart from loans and Government contributions, fall mainly under the two heads, "Taxation" and "Municipal Property and Powers apart from Taxation." Of the taxes the most important are octroi duties, levied in the United Provinces, the Punjab, the North-West Frontier Province, the Central Provinces and Berar, and Bombay, and the tax on houses and lands, which holds the chief place in the other provinces, as well as in Bombay city, and also contributes a considerable share of the receipts in the provinces named above. These two taxes each yielded about one-fifth of the total income of municipalities in 1914–15. There are also water, conservancy and lighting rates, tolls on roads and ferries, taxes on animals and vehicles, and in some places a tax on professions and trades. Steps have been taken in some cases to abolish octroi or reform its working, or to substitute for it direct taxation. The other sources of income include cattle-pound receipts, rents of municipal property, such as markets and slaughter-houses (an important item in Burma), and fees of various kinds. The objects on which municipal funds are spent are, mainly, water supply, roads, hospitals, vaccination, conservancy, drainage, lighting, fairs and markets, and education.

Delhi.—Actual net income rose from £74,024 to £76,033, and expenditure from £78,518 to £78,815. There was a slight falling-off under house-tax, but a gain from octroi.

Bengal.—Calcutta.—Revenue receipts amounted to £762,939, and payments to £739,901. The war affected the finances of the Corporation less than was anticipated, but loan liability increased to £3,344,473. The Calcutta Improvement Trust closed the year with a surplus of £609,133. Five schemes of improvement were sanctioned, and certain sections of the Calcutta Improvement Act were extended to the Maniktolla Municipality. A town-planning exhibition was held in November and December at the expense of Government and the Trust.

Interior of Bengal.—The right to elect municipal commissioners was given to nine municipalities, and, after the close of the year, the right to elect their chairman to 11. General elections were held in 64, and the majority were contested. Expenditure on lighting, water-supply, and conservancy increased; that on drainage decreased. Revision of assessment was effected in 24 of the 112 municipalities, resulting in every case in increase of income. The total actual income decreased by £14,768 to £360,421.

Assam.—Expenditure increased to £37,892, chiefly under the heads water-supply and conservancy. Income fell to £37,501, mainly through reduction in grants. Cases of embezzlement proved the need for more careful accountancy. The occurrence in no fewer than 4 of the 14 municipal offices of serious irregularities is unsatisfactory.

Bihar and Orissa.—Municipalities numbered 55, as in 1914. The privilege of electing their own chairman was granted to 8, but 15 stated this would be unsuitable to local conditions. General elections were held in 32, and in most cases keenly contested. Receipts decreased to £311,018. Revisions of assessment resulted in every case in increased revenue. Cases of embezzlement were brought to light.

United Provinces.—The aggregate municipal income rose and was almost identical with that of 1912–13. Expenditure was the second largest on record. Net octroi income rose from £196,328 to £209,511, though the number of towns where it is in force fell from 37 to 35. Opposition to its abolition persists, though where this has taken place, it is already in some places, as at Orai and Mau, stated to have promoted business. Increased interest in elections is not unaccompanied by the growth of malpractices and the shirking of work after office has been secured.

Punjab.—Municipalities were reduced to 100 by the change of 3 into notified areas. The elective principle is not yet introduced in 29, some of which, on inquiry, were found not to desire it. Though some elections were keenly contested, the percentage of vacancies contested fell from 46 to 30·5, and undesirable practices, such as sale of votes and impersonation have grown up. A tendency for committees to lapse into apathy after election, to prefer private to public interests, and to show jealousy of their own officers was marked, and cases of embezzlement and the inadequate punishment of peculation and extortion point to want of control over employees. On the whole there was steady progress in sanitation and the amenities of life. Income and expenditure decreased, but the rise in octroi to £257,776 indicated general recovery of internal trade. Boundaries were revised in several municipalities.

North-West Frontier Province.—Income from taxation rose from £30,609 to £34,132, mainly owing to the rise in octroi from £29,959 to £33,782. Expenditure decreased by £3,731 to £45,523. Municipal administration may, on the whole, be said to be successful. There was a quickening of corporate life, better sanitation, and improved water-supply.

Central Provinces and Berar.—Additions were made to the number of elected members in Nagpur, and in the Arvi and Bilaspur municipalities. Real income from municipal sources increased from £177,010 to £185,638. Government contributions consisted mainly of grants for sanitary purposes. Expenditure amounted to £242,966.

Madras.—Madras City.—Receipts decreased and expenditure increased; debt fell from £574,300 to £565,459.

Interior of Madras.—2 municipalities began work on 1st April, and 3 unions were subsequently constituted municipalities, making the total 67, with 86 *ex-officio*, 431 nominated, and 502 elected councillors. Receipts declined and were exceeded by expenditure.

Bombay.—Bombay City.—Income rose by £94,513 to £922,071, and expenditure by £21,015 to £853,591. A large increase under town duties pointed to a partial restoration of trade to normal conditions; in spite of the war, the increase in the assessable value of properties was maintained. Work on the Lovegrove Sewage Works was continued; the raising of the Tansa Dam was completed, and the Currey Road overbridge over the G.I.P.R. (except the approach along De Lisle Road). The area disposed of by the Bombay Improvement Trust beat the record for all years except 1913–14. It is now in possession of one-tenth of the island, accommodating one-tenth of the population. Progress in acquisition was unusually slow.

Interior of Bombay.—The Bombay Decentralization Act (III. of 1915), which amended the Bombay District Municipal Act (III. of 1901), became law. The income of the 157 city and town municipalities was £832,505. The incidence of taxation decreased from Rs. 2–8–3 to Rs. 2–7–7. per head. The Rajapur municipality continued under suspension, but the Ahmedabad and Dharangaon municipalities were reinstated. The Hyderabad municipality had to be superseded and temporarily

(Municipalities.)

replaced by a committee of management. Several municipalities received the privilege of electing their own presidents.

Burma.—Rangoon.—Re-metalling roads, water-supply, and fire protection was proceeded with as far as financial stringency allowed. One old insanitary market was closed, a new one established, and proposals for the provision of a much-needed central market are under consideration. Ordinary income and expenditure increased.

Interior of Burma.—Income fell to £307,384, expenditure to £451,022. Of the 44 Municipal Fund Accounts, 6 were left unaudited; in one of these and in 3 others, embezzlements were found.

District and Local Boards.

(*For further details see Statistical Abstract for British India, Table* 102.)

General.—In rural areas district and local boards perform the duties assigned to municipalities in urban areas. In each district, generally speaking, there is a board, subordinate to which are two or more local boards. In Madras the Union Committee or Panchayat is again subordinate to the Local Board. In 1915–16 there were 398 of these with 3,843 members. There are some Union Committees also in Bengal and Bihar and Orissa. The boards contain a varying proportion of elected members. Elected members form a large majority on the boards in the United Provinces and the Central Provinces and Berar. On all boards the great majority of members are Indians. The total number of all these boards in 1915–16 was 1,134. There are no local boards in the United Provinces and the N.W. Frontier Province.

The funds of district and local boards are largely derived from rates or cesses levied upon agricultural land over and above the land revenue. In addition, Government makes grants in aid to all boards. At the close of 1913–14, Government announced their intention of making assignments to the Provincial Governments to enable them to forgo certain amounts which had hitherto been appropriated for provincial use from the cess on land. The boards have also other sources of income, such as cattle pound receipts, educational receipts, medical receipts, tolls from ferries and bridges, and contributions for specific purposes from the provincial funds. Their expenditure is chiefly for roads and bridges, hospitals, vaccination, conservancy, drainage, water supply, primary education, markets, and resthouses.

Delhi.—As in 1914–15, the one district board continued to do useful work in education, rural sanitation, and medical relief. Income rose from £4,163 to £6,599.

Bengal.—There was no change in the number or powers of District and Local Boards; 82 Union Committees were established. The areas under them are conterminous with the Panchayati Unions, members of the Chaukidari Punchayats being also members of the Union Committees, with a view to the ultimate fusion of the two bodies. The District Administration Committee's recommendations that the Public Works Cess should be utilised for financing Union Committees, and the desirability of spending large sums of money from the Public Works Cess on the excavation of tanks in rural areas were impressed on all district boards. Though 23·3 per cent. was spent on water-supply (almost double the previous year), this amount was by no means sufficient.

Assam.—The 19 local boards in the province were reconstituted under the newly-passed Assam Local Self-government Act on the 1st January, and the boards thus attained a legal status with increased powers and responsibilities. A promising beginning was made with the experiment of organising village authorities under experienced sub-deputy collectors, formally constituted in two circles.

Bihar and Orissa.—The number of district and local boards remained unchanged; that of union committees was doubled by the formation of 12 new unions. Income fell to £551,234. The closing balance was £131,990. The activities of the district boards were on the whole well sustained, especially in matters educational and medical. Those of the local boards showed a less encouraging development.

United Provinces.—Receipts declined to £744,027 and expenditure increased to £745,194, but the closing balance still stood undesirably high. This was due partly to the economy enjoined on public works expenditure, but mainly to spending incapacity and inability to reach the standard laid down two years before by the local government. Attempts to carry out sanitation in villages through *panchayats* were on the whole fairly successful. Delegation in a few districts of limited financial powers to local committees produced some promising results.

Punjab.—Inquiries carried out with a view to extending the elective system to the 11 districts of the Western Punjab where it is not in force, disclosed considerable

apathy; but on the whole attendance at meetings improved, and intelligent interest in public affairs made progress. Proposals to increase the resources of the district boards by taxation are still stoutly opposed, and the maximum local rate has been imposed in only 11 districts. Income decreased, but expenditure rose.

North-West Frontier Province.—There were no changes of importance either in the constitution or jurisdiction of the district boards, and their working, though generally satisfactory, gives little evidence of active interest in local affairs; it is hoped that a delegation of financial responsibility, inaugurated in Peshawar, by alloting money for roads to each *tahsil* and making its members responsible for its expenditure may stimulate this. Income fell to £37,207, expenditure to £37,312.

Central Provinces and Berar.—Income and expenditure rose by £6,200 and £25,666 respectively, and Government contributions for education and civil works increased by £6,533. Measures taken in Berar resulted in a substantial reduction of the excessive balances of district boards, and a programme of road construction was drawn up which will to a large extent absorb the surplus funds of these bodies.

Madras.—The actual strength of the 25 district boards at the end of the year was 773 members, as against 779 in 1915. Of these 357 were elected by the taluk boards, and 668 were Indians. The sanctioned strength of the 96 taluk boards was raised from 1,702 to 1,753, and actual membership rose from 1,652 to 1,661; in 240 elections only 63 were actually contested, while in 34 the vacancies had to be filled by nomination. There are union *panchayats* in the more important villages in all districts except South Canara and the Nilgiris, and their total rose from 398 to 408; the elective system was in force in 24; vacancies occurring in 11 cases, only one candidate each appeared in 9; in the 2 others none. Receipts fell to £1,191,369. The closing balance was £85,321.

Burma.—There are no local boards, but there are district funds in Upper and district cess funds in Lower Burma, administered by the Deputy Commissioners. The aggregate receipts of the district cess fund in Lower Burma increased owing to increase in the amount derived from the cess on land revenue. The aggregate expenditure rose owing principally to increased expenditure on public works. The aggregate income of the district boards in Upper Burma was nominally less owing to the contribution for road improvement made from provincial funds in 1914–15, which being expended in 1915–16, nominally increased expenditure under public works. All the district cess and district funds were solvent at the end of the year.

Bombay.—The income of the 26 district local boards and 216 taluka local boards was £564,984, and expenditure £562,831.

Coorg.—The receipts of the board amounted to £6,793, and expenditure to £6,239.

Port Trusts.

(*For further details see Statistical Abstract for British India, Table* 184.)

General.—The larger ports are administered by Port Commissioners, who are charged with the provision of suitable dock accommodation and other services necessary to shipping. The members, who include both Europeans and Indians, are for the most part appointed by the Local Governments, and represent the local commercial communities. Except in Calcutta the elected members are fewer than the nominated members. Port trustees are empowered, subject to the control of the Government, to levy dues on shipping and goods, to charge fees for services rendered, to contract loans for port improvements, to maintain the harbour and its approaches, and to erect warehouses, jetties, harbour lights, and docks. The chief ports are alone dealt with here.

Calcutta.—Receipts, excluding war surcharges, rose to £882,518; expenditure fell to £993,800. The debit balance of £72,566 was thus reduced to £4,002. The net tonnage of the port, 2,967,798 tons, was 30 per cent. less than that of 1913–14 (4,256,987 tons), and was lower than that of 1914–15 (3,705,160 tons). Capital debt rose to £7,169,953, against which the Commissioners hold properties valued at £9,404,670. A new debenture loan, at not more than 4 per cent., was authorised.

Bombay.—Actual revenue, including war surtaxes, but excluding special receipts, beat the previous year, itself a record, and was £875,584, or £112,702 in excess of the estimate, mainly owing to revival of the ordinary import and export trade—a feature of which was the expansion of import trade with Japan—and to Government traffic. A net deficit of £18,889 was met from the reserve fund. The trade of the year was £93,831,000, or, excluding Government transactions, approximately 6 per cent. less than in 1914–15. A 4 per cent. debenture loan of £366,666 was raised for the new

(Port Trusts.)

docks construction, and the Mazagon Sewri Reclamation, including the Port Trust Railway. The total debt was £9,857,716.

Karachi.—Again, as in 1914–15, the trustees did not raise charges. Revenue fell to £218,022; expenditure to £249,708. Capital debt decreased to £1,741,463.

Rangoon.—The effect of the war was much less serious than anticipated, and rigid economy resulted in a gross surplus of £36,847 instead of an estimated deficit, without enhanced charges. Foreign, coasting, and sea-borne trade declined, but river-borne trade increased. Receipts on revenue account amounted to £302,512, and payments to £265,665. The capital debt amounted to £1,990,800.

Madras.—The revision of the Port Trust Act (of 1905) was completed, and the amended Act became law on 26th July. Receipts decreased by 7·20 per cent. to £77,780, largely owing to the rapidity with which imports were cleared. Actual working expenses came to 50·81 per cent. of actual harbour earnings as against 44·44 per cent. in 1914–15. The value of the port's trade, in which there were considerable changes, exceeded that of 1914–15 by 6 per cent., and has only been surpassed in 1912–13 and 1913–14. Progress was made with the west quay and with well-sinking. A large number of motor-boat drivers and driver mechanics were examined and trained for military service by the Trust at the request of the authorities.

CHAPTER XVI.—CONDITION OF THE PEOPLE.

Vital Statistics.

(*Detailed information on Vital Statistics, Sanitation, &c. is contained in the annual Report on Sanitary Measures in India, published as a Parliamentary Paper, and in the Statistical Abstract for British India, Tables* 101–2 *and* 196 *to* 201 *and* 203.)

Registration.—The statistics given below are based on the 1911 census figures. Accurate figures, especially of the causes of death, are unobtainable owing to the difficulty of securing accurate registration. It is more difficult, especially in towns, to obtain information about births than about deaths. The actuarial reviews of the census returns show that the registered birth and death rates are understated: The high Indian birth-rate is due, not to exceptional fertility, but to the large proportion of married women. The high infantile death-rate is partly due to the weakness of the children of immature and ignorant parents, the prevalence of malaria, and faulty midwifery, but to some extent it is only apparent, being calculated on imperfect returns of births.

Birth and Death Rates.—The population of the areas in which births and deaths were registered in 1915 was 238,527,877. 9,021,825 births and 7,142,412 deaths were registered; the rates per mille being 37·82 and 29·94 as compared with an average of 36·39 and 28·61 respectively for the previous five years.

Province.	Birth Rates (per mille).		Death Rates (per mille).	
	1914.	1915.	1914.	1915.
Delhi	48·86	47·91	37·98	28·97
Bengal	33·86	31·80	31·57	32·83
Bihar and Orissa	42·30	40·4	28·30	32·2
Assam	32·94	33·60	24·66	30·86
United Provinces	44·93	43·48	33·46	30·04
Punjab	46·30	43·6	31·96	36·33
N.W. Frontier Province	32·70	31·7	25·75	23·61
Central Provinces and Berar	51·37	47·95	36·69	35·91
Madras	33·50	31·2	25·00	22·0
Coorg	26·23	25·33	34·05	31·08
Bombay	37·43	37.10	29·48	26·12
Burma, Lower	34·69	33·39	22·99	25·12
Burma, Upper	36·69	38·01	26·22	32·72
Ajmer-Merwara	46·90	43·78	30·33	26·03
Total	39·61	37·82	30·00	29·94

The birth-rate was lower in every province except Assam. The largest excess of births over deaths was shown in the United and Central Provinces, nearly 13½ and 12 per mille respectively, though the birth-rate of the Central Provinces was the lowest since 1904. In Bengal 1·03 less births than deaths were registered, and in Coorg, 5·75 births less. The death-rate, though lower in 8 provinces, was kept practically stationary by the considerable rise in the remaining 5, the largest increase, 6·20 per mille, being in Assam.

Chief Diseases.—There are three main classes of fatal disease: specific fevers, diseases affecting the abdominal organs, and lung diseases. Intestinal and skin parasites, ulcers and other indications of scurvy widely prevail. The table below shows the number of deaths from all causes and from each of the principal diseases in British India and death-rates per 1,000:—

Years.	Deaths from all Causes.	Cholera.	Small-Pox.	Fevers.	Dysentery and Diarrhœa.	Plague.	Respiratory Diseases.
1912	7,090,991	407,769	89,357	3,936,085	292,216	263,037	247,736
		1·71	·37	16·49	1·22	1·10	1·04
1913	6,845,018	294,815	98,155	3,983,112	246,578	198,456	237,229
		1·24	·41	16·71	1·03	0·83	1·00
1914	7,155,771	280,730	76,590	4,092,345	278,225	266,588	261,149
		1·18	·32	17·16	1·17	1·12	1·09
1915	7,142,412	404,472	83,282	3,990,287	261,800	380,501	257,721
		1·70	·35	16·73	1·10	1·60	1·08

Cholera is much less prevalent than formerly, and the increased mortality from this disease occurred in provinces where water-supply had been contaminated by floods, the highest rate of death per mille, 4·46, being reached in Assam; in Bengal, where the greatest number of deaths, 130,679, occurred, infection is reported also to have been spread by throwing dead bodies of cholera patients into the rivers; in the Punjab, where the number of deaths, 13,196, was the largest in any year since 1903,

the infection was spread by pilgrims returning from fairs. Bengal contributed the largest increase to the rise in small-pox mortality, 32,785 cases occurring there as against 9,935 in 1914, and an average of 9,095 for the previous three years. With the exception of the small province of Coorg, Bengal had the highest fever death-rate, 23·47. "Fever" was responsible for more than 55½ per cent. of the total mortality, only three provinces—Bombay (11·48), Burma (8·64½), and Madras (7·3) having a fever death-rate of less than 14½ per mille. The term, however, covers many causes of death, and many diseases much more fatal than malarial fever. The malaria section of the Indian Research Fund Association is housed at Kasauli, but has a field-laboratory in Delhi where classes are held. Anti-malarial operations and mosquito surveys are being carried out by special officers in practically all the provinces. The measures adopted to fight malaria are the sale of quinine at cheap rates and the extirpation of mosquitos by such methods as drainage, petrolage and jungle clearing.

Plague mortality increased considerably. In the Punjab, however, where the greatest number of deaths, 221,966, occurred, the epidemic, which, after heavy rains in March and early April, was the worst since 1907, practically disappeared in June with abnormally dry weather, and only re-appeared later on a small scale. The plague death-rate in this province was 11·48 per mille, but the only other provinces to reach 1 per mille were the United and Central Provinces and Bombay, with 1·24, 1·46, and 2·24 respectively. In Bombay the number of deaths increased from 20,060 to 43,824. There were 27,241 deaths or ·7 per mille in Behar and Orissa. In Assam and Ajmer-Merwara no deaths occurred from plague. The marginal table shows the mortality in all India since 1896, when the present epidemic broke out at Bombay. The highest number of deaths for India as a whole, 1,315,892, was recorded in 1907, after which the mortality declined enormously.

1896–1900 -	405,644
1901–1905 -	3,954,601
1906–1910 -	2,520,506
1911 - -	846,873
1912 - -	306,488
1913 - -	217,869
1914 - -	295,760
1915 - -	433,866

Vaccination.—The total number of vaccinations performed among the civil population during 1915–16 was 9,572,083, being an increase of 109,182 operations on the previous year's work. Of primary vaccinations 92·52 per cent., and of re-vaccinations 57·76 per cent., were successful: about 34·21 per mille of the population were successfully vaccinated. The number of infants under a year old successfully vaccinated was 4,348,450 or 48·2 per cent. Calf lymph is now supplied from Government vaccine depôts.

Sanitation.

General.—Every major province has its sanitary commissioner, and (except for the N.W. Frontier Province) its sanitary engineer. In addition there were in May 1914, 26 deputy sanitary commissioners, 16 deputy or assistant sanitary engineers, and nearly 150 health officers. In May 1914 the Government of India issued a comprehensive resolution on Indian sanitary policy.* The following paragraphs give some account of the chief sanitary works undertaken in the various provinces in 1915–6:—

Delhi.—Many improvements, including an effective anti-fly campaign, were effected.

Bengal.—Rules were issued regulating the powers and duties of sanitation committees; also the duties of health officers and sanitary inspectors outside Calcutta. The Bengal (Sanitary Officers' Act) Act II. of 1914 was extended, and is in force in 83 municipalities. Unsatisfactory vaccination conditions were remedied. Measures were taken for improving village sanitation.

Assam.—Of the total income of municipalities 27·60 per cent. was spent on sanitary works, as compared with 28·58 per cent. in 1914. In spite of obstruction, distinct improvement in urban water-supply and some improvement in conservancy were effected. £7,536 was expended on rural water-supply. No anti-malarial measures could be undertaken except at Lumding. The first separate sanitary commissioner was appointed on 1st July.

Bihar and Orissa.—Two assistant sanitary engineers were added to the superior staff of the sanitary engineer; the subordinate establishment was reorganised. An Imperial grant of £19,266 was distributed between drainage and other measures.

United Provinces.—£113,861 was spent on original sanitary works and £41,876 on the maintenance and repair of open waterworks. 18 tube wells were sunk; 17 were entirely successful. Work was started on the Meerut anti-malarial scheme.

Punjab.—Sewage, drainage, and water-supply improvement works were continued or put in hand, but the activities of the board had to be to a great extent suspended for the latter part of the year, owing to the withdrawal of funds by Government.

* Presented to Parliament in 1914 (Cd. 7540).

North-West Frontier Province.—£11,088 was spent on sanitary works. Popular feeling remains averse to sanitary progress and measures for prevention of disease.

Central Provinces and Berar.—Town sanitation continued to progress, but in several districts large balances from special grants for water-supply remain unexpended. Six more villages came under the Village Sanitation Act.

Madras.—Grants were made for town extension, and for the improvement of municipal and rural water supplies and other sanitary works.

In Madras City the first year of the new water-supply works was completed on 17th December. The death-rate fell from 47·1 to 36·4.

Bombay.—27·57 per cent. of the combined municipal income was expended on water-supply, drainage, and conservancy. Sanitary committees were at work in 348 towns and villages.

Burma.—Progress was made with water-supply, drainage, conservancy, and other sanitary works. Inspection of sanitary conditions and of vaccination was actively carried out, and an inquiry was made into an outbreak of malarial fever.

Medical Institutions.

Hospitals, Dispensaries, &c.—In 1915 the number of aided civil hospitals and dispensaries was 2,995 as against 2,856 in 1914. The number of in-patients increased to 541,549 and of out-patients to 33,032,052, and the number of operations rose to 1,356,841. There were also 856 State-special and railway hospitals with a total of 2,730,986 patients and 714 private non-aided institutions with 5,063,947 patients.

Travelling dispensaries are employed in some provinces. The Bengal Nursing Association has begun to train Indian women as nurses in Mofussil hospitals. A similar scheme was brought into force in Burma. In the United Provinces and Burma the system of charging fees to well-to-do patients was continued with success.

Medical Colleges.—There are five medical colleges (Bombay, Madras, Calcutta, Lahore, and Lucknow), the students in which numbered in 1915, 2,096, including 79 women. There are also 17 medical schools, the students in which numbered 2,936. There is an X-ray institution at Dehra Dun where a class of instruction was attended by 20 students. Branch installations opened at Delhi and Simla are obtaining a large number of patients.

Pasteur Institutes.—There were Pasteur Institutes for anti-rabic treatment at Kasauli (Punjab) and Coonoor (Madras). The number of patients treated in the former increased to 5,046, in the latter to 1,490. A Pasteur Institute was opened at Rangoon in July; the foundation stone of another was laid at Shillong in November.

Lunatic Asylums.—The treatment of lunatics at asylums prevails on a comparatively small scale; but the asylum population is steadily increasing. The number of asylums in 1915 was 21. The number of patients admitted was 2,339, as against 2,083 in 1914. The total asylum population of the year was 8,978.

Leper Asylums.—There are many leper asylums, among which may be mentioned the Madras Government Leper Asylum, the Matunga Leper Home, Bombay, the Trivandrum State Leper Asylum, and the Calcutta Leper Asylum. There are also many asylums or homes, frequently under some sort of Government supervision, including about 50 asylums of the Mission to Lepers.

Emigration.

(*For further details see Statistical Abstract for British India, Tables* 194 *and* 195.)

Emigration from India, so far as it is brought under the cognizance of Government, is mainly regulated by Act XVII. of 1908 and the Rules issued under its provisions. Emigration to Ceylon, to the Straits Settlements, and for employment under Government only in British East Africa and Central Africa is, however, excepted from the restrictions of the Act. By this Act, natives of India are permitted to emigrate, under contract to labour for hire, only to such countries as have satisfied the Government of India that sufficient provision is made in them for the protection of Indian immigrants; and a similar protection is extended to natives of India engaged to emigrate, individually or in small parties, to work as artisans, entertainers, servants, &c. Emigration, otherwise than under contract to labour or work in one of the above capacities, is not controlled by legislation. Emigration under the Act is now confined to certain British possessions, chiefly in the West Indies, and to Surinam.

On 20th March 1916 the Governor-General announced in the Legislative Council the acceptance of a policy for the eventual abolition of the system of indentured emigration. In the interim certain transitional arrangements affecting relations with the Colonies are to be worked out.

(Emigration.)

Calcutta.—Three emigration agencies collected and despatched emigrants on behalf of the British colonies, but the agency for the Dutch colony of Surinam suspended operations. In 1914 it had received a much higher proportion of its demands than the British, to whom, in 1915, owing, again, to the scarcity of steamers, only 2,314½ out of 5,486 emigrants requisitioned could be supplied. Of these, Fiji secured more than half. 90·71 per cent. of the emigrants registered were recruited in the United Provinces. The number of licences issued diminished by 87 to 556. 16 were cancelled as against 35 in the previous year. 1,155 emigrants returned as against 2,961. Of these, 6, who returned from Fiji, and 2 from Natal were suffering from leprosy. Only 112, or 9·70 per cent., brought back savings, which aggregated £14,144. An important feature of the year was the delegation to the Protector of Emigrants of the power vested in the local government to grant licences to masters of emigrant vessels.

Madras.—Regulated emigration to Fiji continued till July, 1,115 emigrants being despatched. Recruitment for British Guiana began on 7th July and continued till the end of September, 737 emigrants being despatched. There was no emigration to Trinidad, the French Colonies, Mauritius or Seychelles.

The increased demand for non-regulated labour in the Straits Settlements, Burma, and Ceylon, resulted in increased emigration, but it is impossible to distinguish genuine emigrants from ordinary passengers.

Bombay.—Emigration by sea was more than doubled owing to the large demand from the Anglo-Persian Oil Company, 476 emigrants proceeding to Persia. The other main foreign market for Indian labour was the Uganda Railway, and 146 were despatched to British East Africa. From Karachi 41 emigrants left for Uganda, and 291 for Persia. The restrictive immigration laws in South Africa continued to curtail emigration.

Migration.

Assam.—The recruitment, engagement, and emigration of labour is now carried on under the Assam Labour and Emigration (Amendment) Act (VIII. of 1915), by which the licensed contractor and the penal labour contracts of the Act of 1901 are abolished, sardari recruiting only made permissible, and the Assam Labour Board constituted for its supervision. Operation of clause 7 of the Act (which had become law on 25th March) was postponed until 1st July. Notifications were issued during the year for the purpose of regulating and encouraging recruiting by genuine sardars, and three supervisors were appointed under the board, which was in full working order during the year, and achieved excellent results. The total labour population at the close of the year was 953,127, or 73,797 more than in 1914. The number of "Act" labourers remaining was further reduced to 5,062, or ·08 per cent. of the total adult labourers. The number of immigrants rose from 63,638 to 110,376. Time-expired coolies held 221,161 acres of Government land, and 30,978 acres in the province as sub-tenants. 15,803 acres of Government land were held by managers on special leases to provide coolies with cultivation.

Bengal.—The number of emigrants embarked at Goalundo was the highest on record, this being probably partly due to scarcity, partly to abolition of the labour contract.

Prices.

(*For further details see Statistical Abstract for British India, Tables* 206 *to* 211.)

The marginal table of prices during the seven years to 1915 has been compiled from Government returns showing the index numbers of the prices of: (*a*) 11 articles imported; (*b*) 28 articles consumed in India or exported; (*c*) food-grains. The prices under (*a*) and (*b*) are wholesale, and under (*c*) retail. The index number of each year represents a simple average of the separate price ratios of the selected articles. In showing the variations the prices of 1873 are taken as 100. Prices were high in 1908 owing to the widespread failure of crops in Northern India. In 1909 and 1910 there was a general decline and foodstuffs continued to fall till 1911. During 1912–13 the price of agricultural produce showed a general tendency to rise, and this tendency continued on the whole in 1913–14. In 1914–15,

Year.	Index Number for Articles imported.	Index Number for Articles consumed or exported.	Index Number for Food-grains (Retail Prices).
1873 - -	100	100	100
1909 - -	99	133	195
1910 - -	109	127	168
1911 - -	113	136	161
1912 - -	117	145	189
1913 - -	117	154	199
1914 - -	114	160	222
1915 - -	146	155	218

(Prices.)

before the outbreak of war, prices of cereals, pulses and oilseeds (except linseed) were on the whole higher than in 1913–14, while raw cotton and jute prices were lower. The restriction of exports due to the outbreak of war which curtailed or stopped demand in European markets led to a general fall in Indian staples, such as oilseeds, raw jute and raw cotton. The two latter, which were so injuriously affected in 1914–15, had risen respectively 25 per cent. and 39 per cent in March 1916 above the prices of March 1915, though still 17 per cent. and 5 per cent. below the pre-war rates. Oilseeds again declined. The price of wheat gradually declined after Government intervention to 5 per cent. below the pre-war rate; that of the inferior food-grains also declined. The average price of rice in March 1916 remained the same as in March 1915, and was 12 per cent. below the pre-war rate, although during the months September to November the price was considerably higher than in the corresponding months of the previous year. In the Punjab the bad harvest caused a rise in all prices except those of wheat, maize, and rapeseed. In Madras the staple food-grains were generally cheaper than in 1914–15, but the average retail prices continued above normal. In Assam the severe floods, which damaged the harvests and temporarily interrupted communications, sent up prices. In Delhi, owing to unsatisfactory rainfall, the prices of all staples were considerably above normal. Satisfactory harvests in Central Provinces and Berar reduced prices of foodstuffs, while out-turn and prices of cotton were handsomely increased.

Wages.

(*For further details see Statistical Abstract for British India, Tables* 204 *and* 205.)

Quinquennial wage-censuses have been established for the different provinces, and the results of the first of these censuses, taken in 1911, were summarised in the Moral and Material Progress Report for 1912–13. The general tendency in most provinces is for wages to rise gradually in response to the gradual economic development of the country and the consequent demand for labour.

Except for considerable rises in the brewing industry in the Punjab, and tea industry in Assam, there were no fluctuations of importance in 1915–16. There was no marked change in the wages of the cotton, paper, mining, and rice industries, and notwithstanding the heavy war orders in jute and wool, a plentiful supply of labour, especially in the jute mills, prevented a great rise in the wages paid. In Bengal, the supply of labour greatly exceeded the demand, and wages remained comparatively low, though with a tendency to rise in response to raised prices. In Bihar and Orissa the demand was on the whole sufficient, and the rates generally maintained. In the North-West Frontier Province, wages continued to show an upward tendency. In the Punjab there was no lack of employment, and wages maintained their level. In the United Provinces the year was a prosperous one for labour. In Burma, the general rate of wages paid to operatives remained much the same. In the Central Provinces and Berar employment was ample at fairly high rates of wages.

Famine or Scarcity.

Bengal.—Owing to failure of the crops distress prevailed in Bankura, Tippera, and Noakhali, and relief works were opened. In Noakhali, however, the period of relief only lasted from June till August.

Bihar and Orissa.—Relief works were opened in Singhbhum and Manbhum.

Bombay.—Relief works were opened at Kathiawar.

Ajmer-Merwara.—Relief works were opened in the autumn.

CHAPTER XVII.—ARMY AND MARINE.

(For further details see Statistical Abstract for British India, Tables 45 to 47, 70 and 185 to 193.)

Army.

The established strength of the European and Indian armies in India for 1915–16 (exclusive of Indian artificers and followers), was: European army, 2,291 officers and 72,475 warrant and non-commissioned officers and privates; Indian army, 3,197 European officers and non-commissioned officers and 159,858 native commissioned and non-commissioned officers and privates, or a total establishment of 237,821.

During 1915–16 the army of India was engaged in operations of war in France and Belgium, West Africa, East Africa, Egypt, Somaliland, Aden, Mesopotamia, Persia, and on the North-West Frontier of India.

The net expenditure on the army in 1915–16 was £17,876,836 for effective charges and £3,076,421 for non-effective charges, or £20,953,257 in all, as against £19,240,368 in 1914–15. In addition, £772,332 (net) was spent on military works and £13,514 on special defences.

The expenditure covered the full ordinary maintenance cost of the troops, &c., employed with the overseas Indian Expeditionary Forces, as, in accordance with parliamentary resolutions, Indian revenues continue to bear ordinary pay and other charges of these troops.

Health of the British and Indian Armies.—The following table shows the sickness and mortality of the British and Indian troops (excluding officers) in India. During 1915 the death-rate of the British troops in India showed a further rise over the rate for 1914, and over the rate for 1913, which was the lowest on record. There was a further rise in the admission rate. For the Indian troops both death-rate and admission rate show an increase. These increases are no doubt in large part due to the treatment in India of troops evacuated sick from Expeditionary Forces.

	Ratio per Mille of Strength.							
	British Troops.				Indian Troops.			
	Average 1908–12.	1913.	1914.	1915.	Average 1908–12.	1913.	1914.	1915.
Admissions into hospital	638·4	580·5	614·1	823·1	578·3	531·7	566·5	744·4
Constantly sick - -	60·3	29·7	31·8	39·1	20·9	21·4	20·9	33·9
Deaths - - -	6·1	3·3	4·3	5·95	5·4	4·0	4·2	8·55

Marine.

The net expenditure on marine services amounted to £522,250 in 1915–16 as against £265,255 in 1914–15. In this amount are included the cost of the Royal Indian Marine and the annual contribution of about £100,000 towards the expenses of His Majesty's ships employed in the Indian seas.

On the 31st March 1916 the Royal Indian Marine consisted of three troopships and six other sea-going vessels, three inland vessels, three flats, and a number of small steamers, launches, &c. There was an establishment of about 2,130 officers and men.

CHAPTER XVIII.—FRONTIERS AND NATIVE STATES.

The War.—Among the generous contributious of money and personal assistance in the war by which India testified its loyalty to the Empire, those of the Native States were again conspicuous. Despatches from the commanders in the various theatres of war testified to the gallantry and stanchness of the Indian troops and chiefs present, and the gifts received from chiefs and people included fighting aeroplanes, armoured motor-cars, railway and munitions and other war material, hospital ships, hospitals in England and India, army remounts, and generous subscriptions in money and kind to relief funds, St. John's Ambulance Association, &c.

Baluchistan.—The province as a whole satisfactorily stood the severe test of the war, although not entirely unaffected by the contagion of unrest on the Persian border. The behaviour of the tribes on the whole Afghan border from Zhob to Quetta was exceptionally good, probably owing to the energetic measures of the Amir and his Government; serious raids only took place from the lawless Afghan district of Shorawak (marching with the Quetta district), and in Zhob. On the Persian border it was very different. In the isolated Jhalawan country, which is in close touch with Mekran (the scene in 1914–15 of frequent raids from Persian territory), disturbances early in the year necessitated the despatch of troops to a short distance beyond Kalat. There were raids, too, in the Chagai district, which borders on Persia and on Jhalawan. In July the Marris and Bugtis also started raids in pursuance of private feuds. In September, Bahram Khan, of Bampur, in Persia, ravaged the Kej Valley for many miles. The whole of the western portion of the valley was looted by lawless tribesmen, who, probably at the instigation of German agents, had been raiding Mekran since early in the war. Further north, many outrages were committed by the Damanis until severe punishment was inflicted by a military force despatched to deal with them.

Against these unfortunate occurrences must be set the satisfactory condition of the Las Bela State, the excellent attitude of the Sarawan chiefs, and the marked advance of the Kalat State in financial and administrative reform.

North-West Frontier Province.—The participation of Turkey in the war produced the inevitable consequences. It was popularly expected that Persia would join Turkey, and that the Amir of Afghanistan would be forced to do the same. The absence of the troops despatched to Europe, and the tales of German frightfulness and invincibility brought back by invalided soldiers gave rise to the belief that the British Government was destined to disappear, and to hopes of a great Islamic renaissance. The tribal mullas, eagerly seconded by the mullas of Southern Afghanistan, began to preach *jehad*, and were joined by many trans-border tribesmen in the Indian army. By March 1915 attacks by the people of the Afghan province of Khost, on the Tochi and Kurram, had been engineered by the fanatics. These were successfully repelled, but were only the forerunners of others. On 17th April about 4,000 Mohmands invaded the Peshawur district. They were promptly attacked, but with indecisive results. In June they were joined by the Babra Mulla. The unrest spread to Swat and Bunar, and the Hindustani fanatics became active. The employment of troops on a large scale became necessary. On the 17th August about 4,000 Bunerwals were driven back from British territory by the Ambela Pass; on the 20th others were repelled at the Malandri Pass; and shortly after the lashkars collected under the Sandiki Mulla, now joined by the Sartor Faqir, attacked the pickets of the Malakand Movable Column with 5,000 men, and were only dispersed after a determined attack on the Landakai spur, and the destruction of their fort of Kak. By September some 10,000 Mohmands were brought to the Shabkhadar border by the Babra Mulla. They were driven back on the 5th with losses estimated at about 1,000 dead and wounded. Mir Sahib Jan Badshah, of Kunar, one of the most important mullas of Afghanistan, joined them with about 1,000 followers, and early in October appeared on the Shabkhadar border with the Babra and Chaknawar mullas and about 9,000 Mohmands, who again threatened the Peshawur district, but were completely dispersed, after the loss of about 100 killed. Smaller demonstrations later in the autumn were easily driven off by the Chakdara Column, and the Mohmands, Upper Swatis, and Bunerwals were then placed under blockade for the winter. A series of raids by the Mohmands in the Peshawur district, in reprisal, culminated in December in a serious attack on Charsadda. Some 1,300 cis-border Mohmands and others suspected of assisting raiding gangs were thereupon arrested and about 300 kept as hostages, after which raiding ceased.

(Frontiers and Native States.)

Throughout all these events on the Peshawur border, the loyal adhesion of the Afridis to the Government, in spite of very great efforts by mullas and Afghan emissaries to seduce them, was of the greatest value, and strikingly justified the grant of double allowances to them in 1915.

In the south of the province our troops and militia were attacked by Mahsuds, who throughout the summer and autumn raided Dera Ismail Khan until the northern half of this district was almost ruined; Mahsuds and Wazirs severely raided also the neighbouring district of Bannu.

In all districts there have been evoked real proofs of devotion to Government, which, considering the uncertainties of the time, could hardly have been expected. A false alarm of an impending attack on the Hazara border called forth practical exhibitions of loyalty from the leading men of that district.

Assam Border Tribes.—Relations with the tribes remained entirely satisfactory. A state of war still exists between the Minyong, and as soon as it is possible a strongly escorted tour will be advisable for preventing disturbances among the Abor tribes. Trans-frontier tribes were inclined to fight among themselves, but anxious to preserve friendly relations with Government.

Burma.—In the Chin Hills proper the year was uneventful, and the behaviour of the inhabitants excellent. The tribes on the borders of the Akyal and Kyaukpyu districts gave no trouble. Raids occurred in the unadministered territory between the Chin Hills and Arakan, and were not dealt with. The south-western boundary of the Chin Hills was finally demarcated, thus completing the demarcation of all the boundaries of the district.

In the Shan States the year on the whole was both prosperous and peaceful, little affected by the war, by events in China, or by the disturbances in French territory on the Mekong. The chiefs maintained, in many instances at considerable expense, a watch and ward of the greatest value on all important roads and ferries to prevent the entry of hostile or seditious elements. The newly opened railway carried more than half of the trade of the Southern Shan States.

On the North-Eastern Frontier the peace remained undisturbed, and good progress was made. In the newly formed district of Putao boundaries were fixed, unexplored tracts visited, headmen appointed, and relations with the tribesmen improved by means of frequent tours by frontier officers.

Jammu and Kashmir (including Poonch).—The effects of serious drought in Jammu with which the year opened, and the inflated prices of food grains, were countered by remissions of revenue, by maintaining the prohibition on export of grain, and other measures. Kashmir was visited by cholera and Jammu by plague. There were no overt acts of hostility on the part of trans-frontier tribesmen.

Hyderabad.—The services of the Nizam's Minister, Nawab Salar Jang, were definitely dispensed with, and his duties temporarily undertaken by the Nizam. Revenue was in excess of the average, owing to the general excellence of the crops. Local trade, after considerable dislocation, was completely restored.

Mysore.—Rains were ample and timely, and an addition to the revenue resulted from the construction of the Cauvery Reservoir dam. A local university was established, and schools, especially primary schools, showed an increase of strength. The non-official element in municipal councils was increased, their powers extended, and procedure regulated.

Baroda.—Failure of rains resulting in scarcity and the necessity for considerable relief measures diminished revenue; but a notable increase in the revenue obtained from the railways resulted from increased traffic. Nearly 27 miles of State-owned railway were opened, and other extensions were under construction. The Baroda Hindu Parohit Act was passed, and is perhaps the first Act of its kind aiming at furnishing well-qualified Hindu priests instead of the present ignorant class.

Rajputana.—Rainfall was generally unsatisfactory and crops poor, necessitating migration of cattle, remissions of revenue and other measures, short of relief works, to assist distress. In Jodhpur, wolfram deposits were discovered and worked by a company which gave Government first call on the output. The Maharaja of Jodhpur was invested at the age of 18 with ruling powers on 22nd February, shortly after his return from France, where he had spent some nine months with the Jodhpur Imperial Service Lancers and the Regent, Maharaja Sir Pertab Singh.

Central India.—Harvests were mostly satisfactory. Large numbers of cattle from Rajputana were provided with grazing. Plague became epidemic in Indore, but cholera decreased from 10,075 to 795 deaths, which occurred chiefly in Baghelkhand.

Trade prospered, the cotton market recovered a good deal, and wheat fetched high prices. The "Eastern States of Central India Export Trust" was formed by six Baghelkhand and Bundelkhand States, which combined to develop their resources, especially lac, tannin, and hides. Five States combined to engage a joint agricultural adviser, and appointed to the post Mr. Coventry, late agricultural adviser to the Indian Government.

Bengal.—In Cooch Behar the total revenue rose from £175,279 to £204,561. Heavy rains did damage at the beginning of the year, but winter crops yielded a good harvest.

In Hill Tippera, cultivation suffered from floods, and for a time food grains had to be imported.

Bihar and Orissa.—The release of the State of Bonai from Government management was sanctioned, subject to certain conditions. On the death, in March 1916, of Raja Tribhuvan Deo, Feudatory Chief of the Bamra State, the succession of his eldest son, Raja Sudhal Deo, was recognised by the Lieutenant-Governor in Council.

Assam.—The year was politically uneventful. Under the influence of the Political Officers the behaviour of the tribes throughout the frontier was generally satisfactory.

Madras.—In Travancore shortage of tonnage, &c., depressed trade, and expenditure exceeded revenue. A Regulation was passed by the Council establishing Village Panchayat Courts. The railway from Shencottah to Quilon continued to work at a loss. In Cochin a fall in receipts necessitated reduced expenditure, and, owing to depression of trade, relief works had to be opened in the southern part of the State. Five more Village Panchayat Courts were constituted here. Banganapalle had a fairly prosperous year. In Sandur no income was derived from mines, owing to their closing through the war, and revenue decreased. Rainfall was mostly favourable.

Punjab.—In Patiala scarcity of fodder, owing to lack of rain, necessitated State relief in the southern districts. In Jind both harvests were very poor. In Bahawalpur administrative progress in many directions was made under the Council of Regency. The new scheme of State administration worked well in Faridkot. Tikka Vidyadhar Singh was formally installed as chief of Kumharsain. Raja Bijai Sen of Keonthal died and was succeeded by his son, Tikka Harnendar Singh, a minor. Nawab Jallab Khan, C.I.E., chief of the Gurchani tuman, died in October, and his son, Sardar Lashkar Khan, was formally installed in November. A long-standing dispute between the Mazari and Drishak tribes about some land on their border was decided by *jirga;* a feud between sections of the Gurchani and Bugti tribes was happily settled.

Bombay.—The season was generally favourable in all the States, except those situated in North Gujarat, where rainfall was scanty, and in the Khairpur State, in Sind, where rabi crops were adversely affected by low inundation. No appreciable progress in educational development was made. Wages continued high. Maharana Shri Sir Chhatrasinhji Gambhirsinhji, K.C.I.E., Raja of Rajpipla, died, and was succeeded by his son, Maharana Shri Vijayasinhji Chhatrasinhji.

APPENDIX.

LIST OF INDIAN OFFICIAL REPORTS, &c.

(MOSTLY ANNUAL.)

General.

Statistical Abstract relating to British India (Parliamentary Paper).
Statistics of British India:—
Vol. I.—Commercial.
Vol. II.—Financial.
Vol. III.—Public Health.
Vol. IV.—Administrative and Judicial.
Vol. V.—Educational.
Census Reports (Decennial), India, Provincial, and Native States.
Administration Reports: Madras, Bombay, United Provinces, Punjab, Bengal, Central Provinces and Berar, Burma, Bihar and Orissa, Assam, North-West Frontier Province, Delhi, Coorg, Andaman and Nicobar Islands, Civil and Military Station of Bangalore, Ajmer-Merwara, Baluchistan Agency.

Legislation.

Acts of the Imperial and Provincial Legislative Councils.

Justice and Police.

Report on the Administration of Civil Justice for each Province.
Report on the Administration of Criminal Justice for each Province.
Report on Jails for each Province.
Reports on Police for each Province, and for Bombay Town and Island, Calcutta, and Rangoon.

Finance.

Finance and Revenue Accounts of the Government of India.
East India Financial Statement (Parliamentary Paper).
Return of Net Income and Expenditure for eleven years (Parliamentary Paper).
Accounts and Estimates: Explanatory Memorandum (Parliamentary Paper).
Home Accounts (Parliamentary Paper).
Loans raised in England (Half-yearly Parliamentary Paper).
Loans raised in India (Half-yearly Parliamentary Paper).
Mint Reports for Calcutta and Bombay.
Paper Currency Department Reports, India and Bombay.
Statistics compiled from the Finance and Revenue Accounts.

Land Revenue, &c.

Land Revenue Administration: Provincial Reports for Lower Provinces (Bengal), Bihar and Orissa, Assam, United Provinces, Bombay Presidency (including Sind), Punjab, Central Provinces and Berar, Burma, and Madras.
Report on Land Revenue Administration, Land Records, Settlement Operations, Alienation of Land Act, &c. for North-West Frontier Province.
Madras Survey, Settlement and Land Records Department Report.
Reports of Land Records Departments for Bombay, Burma, Bengal, United Provinces, and Punjab.
Report on Settlement Operations, Punjab.
Reports on Survey and Settlement Operations, Bengal, Bihar and Orissa, and Assam.
Reports on Operations of the Land Records and Settlement Departments, Central Provinces and Berar.
Report of the Talukdari Settlement Officer, Bombay.
Provincial Reports on the Administration of Estates under the Court of Wards.
Report on the Punjab Canal Colonies.

Separate Revenue (Salt, Excise, &c.).

Salt Department Reports: Northern India, Madras, Bombay, Sind, Bengal, Burma, Bihar and Orissa.
Excise Report for each Province.
Report on the Operations of the Opium Department.
Stamp Department Report for each Province.
Registration Department Report for each Province.
Income Tax Report for each Province.

Agriculture and Veterinary.

Report on the Progress of Agriculture in India.
Report of the Agricultural Research Institute and College, Pusa.
Bulletins of the Agricultural Research Institute, Pusa, and of the Provincial Departments of Agriculture.
Memoirs of the Department of Agriculture.
Proceedings of the Board of Agriculture.
Agricultural Journal of India (quarterly).
Reports of the Department of Agriculture for each Province.
Reports on Agricultural Stations, Experimental Farms, and Botanic Gardens for each Province.
Season and Crop Report for each Province.
Agricultural Statistics of India.
Area and Yield of certain Principal Crops.
Report on Production of Tea in India.
Report on Tea Culture in Assam.
Reports of the Civil Veterinary Departments for each Province.
Statistics compiled from the Reports of the Provincial Civil Veterinary Departments.
Report of the Camel Specialist.
Report of the Imperial Bacteriologist (Veterinary).

Co-operative Societies.

Statements showing Progress of the Co-operative Movement in India.
Reports on Co-operative Societies for each Province.
Reports of Conferences of Registrars of Co-operative Societies, India and Provincial.

Forests.

Annual Return of Statistics relating to Forest Administration in British India.
Report on Forest Administration for each Province.
Reports of the Forest Research Institute and the Imperial Forest College, Dehra Dun.
Quinquennial Forest Review.
Indian Forest Memoirs.
Indian Forest Records.
Forest Bulletins.

Mineral Production and Inspection of Mines.

Review of Mineral Production (in Records of Geological Survey).
Report on Production and Consumption of Coal in India.
Report of the Chief Inspector of Mines.

Trade and Manufactures.

Annual Statements of Sea-borne Trade and Navigation, India and Provincial (Madras, Bombay, Sind, Bengal, Bihar and Orissa, Burma).
Review of the Trade of India (Parliamentary Paper).
Tables of the Trade of India (Parliamentary Paper).
Provincial Reports on Maritime Trade and Customs (including working of Merchandise Marks Act) for Bengal, Bihar and Orissa, Bombay, Sind, Madras, and Burma.
Accounts relating to the Sea-borne Trade and Navigation of British India (monthly and for calendar year).
Accounts relating to the Trade by Land of British India with Foreign Countries (monthly).
Annual Statement of Coasting Trade of British India.
Report on the Trade and Navigation of Aden.
Accounts of Trade carried by Rail and River in India.
Report on Inland, Rail-borne, or Rail-and-River-borne Trade for each Province.
External Land Trade Reports for Bengal, Bihar and Orissa, Assam, Burma, United Provinces, Punjab, North-West Frontier Province, Sind, and British Baluchistan.
Indian Trade Journal (weekly).
Statistics relating to Joint-Stock Companies in British India and Mysore.
Report on the working of the Indian Companies Act for each Province.
Report on the working of the Indian Factories Act for each Province.
Report of the Chief Inspector of Explosives.

Public Works.

Administration Report on Railways.
Reports on Public Works (Buildings and Roads) for Madras, Bombay, Punjab, North-West Frontier Province, and Burma.
Review of Irrigation.
Report on Irrigation Revenue for each Province (except Madras).
Administrative Reports on Irrigation, Madras and Bombay.
Report on Architectural Work in India.

Posts and Telegraphs.
Report on the Posts and Telegraphs of India.
Report of Indo-European Telegraph Department.

Scientific Departments.
Report on the Operations of the Survey of India.
Records of the Survey of India.
Records and Memoirs of the Geological Survey of India.
Report of the Indian Meteorological Department.
Indian Weather Review, Annual Summary.
Rainfall Data of India.
Memoirs of the Indian Meteorological Department.
Report of the Meteorologist, Calcutta.
Report of the Director-General of Observatories.
Memoirs and Bulletins of the Kodaikanal Observatory.
Report of the Board of Scientific Advice.
Report of the Archæological Survey of India, and Provincial Reports.
Report and Records of the Botanical Survey.

Education.
Education Reports for India and each Province.
Quinquennial Review of Education (Parliamentary Paper).

Local Self-Government.
Reports on Municipalities for each Province and for Calcutta, Bombay City, Madras City. and Rangoon.
Reports on District and Local Boards or Local Funds for each Province.
Reports of Port Trusts of Calcutta, Bombay, Madras, Rangoon, Karachi, and Aden.

Medical, Sanitary, and Vital Statistics.
Report of the Sanitary Commissioner with the Government of India.
Report on Sanitary Measures in India (Parliamentary Paper).
Report of the Sanitary Commissioner for each Province.
Vaccination Report for each Province.
Report on Civil Hospitals and Dispensaries for each Province.
Report on Lunatic Asylums for each Province.
Report of the Chemical Examiner and Bacteriologist for each Province.
Scientific Memoirs by Officers of the Medical and Sanitary Departments.
Reports of the All-India Sanitary Conferences.
Reports of the Imperial Malaria Conferences.
Indian Journal of Medical Research (Quarterly).

Emigration and Immigration.
Calcutta Port Emigration Report.
Bengal Inland Emigration Report.
Assam Immigration Report.

Prices and Wages.
Prices and Wages in India.
Variations in Indian Price Levels.
Reports of Provincial Wage Censuses.

Printed under the authority of His Majesty's Stationery Office
By EYRE and SPOTTISWOODE, LTD., East Harding Street, E.C.4,
Printers to the King's most Excellent Majesty.

Digitized with financial assistance from

Government of Maharashtra

on 01 February, 2020